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PRESENT NEEDS IN MICHIGAN FOR THE CARE OF THE INSANE AND FEEBLEMINDED

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The needs of any state for the care of its insane and feeble-minded can be predicated from the application of various facts and figures based upon knowledge of the situation in other states and checked by other facts and figures obtained from a study in the given state of its methods and standards of allied welfare work. There is no state today which does not provide some degree of state program for the care and treatment of its mentally sick. There are five states today, Arkansas, New Mexico, Arizona, Utah and Nevada, that provide no separate state institution for the feeble-minded. January 1st, 1923, there were in all state institutions for the insane in the United States 267,617 patients; i. e. 245 patients in mental hospitals for every 100,000 persons in the general population. On that same date there were in all in-

stitutions for the feeble-minded throughout the United States 42,954 persons: a rate of 39.3 persons for each 100,000 of population. On that same date there were 18,829 feeble-minded in state institutions for the insane and an additional 12,143 feeble-minded in almshouses.

Different states vary in the amount and character of care they provide for their mentally sick. At one pole is Massachusetts which provides 413 beds in state mental hospitals for each 100,000 of population: at the opposite pole is New Mexico with only 106 beds in mental hospitals for each 100,000 of its population. The average number of beds spread over the entire United States is 245 per 100,000 population. Michigan is providing today only 213 beds for each 100,000 population.

The same fluctuations obtain with re-

spect to state care of the feeble-minded. New Hampshire in 1923 provided the highest ratio with 88.1 beds in a state institution for each 100,000 of the population, while the average ratio spread over the entire United States was 39.3 beds per 100,000 population. Michigan on that same date was providing 54.8 beds per 100,000 population. That number has been increased today to a point where Michigan is providing approximately 65 beds in state institutions for the feeble-minded per 100,000 population.

It is not necessary then to defend the thesis of state provisions for the modern medical care of the insane, feeble-minded and epileptic. It is equally unnecessary to spend any great amount of time explaining the reasons for such variations in the ratios obtaining in different states. A glance at the map of the United States, charted according to the number of patients in hospitals for the mentally sick, of itself suggests some of the more patent reasons: the age of the state; the general character of residence of the population of the state, whether preponderantly urban or rural; the industrial activities of the people; the degree of density of population; the proportionate amounts of foreign born in the state; the degree of development of social conscience in its citizens; the professional standards of its public institutions; the confidence of the citizens in the character of service rendered by its organized agencies; the geographical accessibility of its institutions to the people of the state; and the degree of legal hindrance hedged about the sick or defective person's right to receive proper and early treatment without unnecessary, humiliating notoriety. These are the more important reasons that determine in large part the character and the amount of provision for care of mental disease and defect in any given state.

The subject assigned this paper was "Present Needs in Michigan for the Care of the Insane and Feeble-minded." This suggests that there are pressing present problems in Michigan in this field. There are today 2,050 persons at large in the State of Michigan who have been certified, under oath, by physicians, appointed by courts of the state, to be insane, feeble-minded or epileptic and to require for their own welfare and the welfare of the state that they be admitted into state institutions for the treatment of the insane, the feeble-minded or epileptic. This is no theoretical discussion of parlor sociology. This is a factual situation.

To understand this situation it is desirable to go back into the earlier history of the state. The first specific provision for the care of the insane was made by the Board of Superintendents of the Poor of Wayne County as early as 1834, three years before the incorporation of the state of Michigan, fourteen years before the state in 1848 made statutory provision for the care of the insane and twenty-five years before the Kalamazoo State Hospital, the first state mental hospital actually opened in 1859. It was then anticipated that the insane in the special building at the Wayne County Poor Farm would be received at the new state asylum at Kalamazoo but there were already so many insane in their homes, in jails, in poorhouses without separate quarters for the insane and in other asylums outside the state as far away as Utica, New York, that the new asylum was quickly filled to the exclusion of the Eloise patients. The Pontiac State Hospital was established by the Legislature of 1873 and admitted its first patients in 1878. This year of 1878 should be memorable in the history of Michigan's welfare work because it was then that the law providing for complete state care of the insane was enacted, prohibiting henceforth the detention or care of "any insane person in county houses, jails and other receptacles," thus committing the state to an adequate program which, however, has never yet completely eventuated. The Traverse City State Hospital was established by the legislature of 1881 and admitted its first patients in 1885. The Ionia State Hospital opened in 1885 and the Newberry State Hospital admitted its first patients in 1894.

There were three new state institutions for the insane opened and receiving patients within a period of nine years with not an additional one since in an interval now of thirty-five years.

The state institution for the feeble-minded, the Michigan Home and Training School at Lapeer, was established by the legislature of 1893 and received its first admissions in 1895.

The Michigan Farm Colony for Epileptics at Wahjamega received its first admissions in 1914. The Wayne County Training School at Northville for higher grade, trainable feeble-minded and borderline children, established under an enabling act of the legislature, admitted its first children in 1926.

The State Psychopathic Hospital at the University must not be overlooked in any such consideration, notwithstanding its

small size and lack of countless facilities that it should have. This was the first psychopathic hospital established in this country; authorized by the legislature in 1901 and opened in 1906. Its value to the state has been untold. It has a very rapid turnover and furnishes unusual facilities for certain early mental types that would not otherwise accept treatment. Its greatest value, however, has been as a co-ordinating force to energize co-operation among the various state hospitals, to furnish a means of presenting an adequate understanding of mental disorders to medical students and a center of scientific research in this field.

The present population of each of these institutions on September 30th, 1928, appears on Chart No. 1. The institutions of the state, including Eloise and Northville, providing care and treatment for individuals socially inadequate by reason of mental disease or defect, total then today a little over fourteen thousand; 14,178 on September 30th. There were in addition, as already mentioned, 4 insane persons committed and awaiting admission to the Kalamazoo State Hospital, 555 insane persons committed and awaiting admission to the Pontiac State Hospital; 483 insane awaiting admission to Eloise; 105 epileptics committed and awaiting admission to the Michigan Farm Colony at Wahjamega; and 903 feeble-minded committed and awaiting admission to the Michigan Home and Training School at Lapeer.

CHART NO. 1
POPULATION SEPTEMBER 30, 1928

Mental Disease—		
Kalamazoo State Hospital.....	2,567	
Pontiac State Hospital.....	1,691	
Traverse City State Hospital.....	2,073	
Newberry State Hospital.....	1,128	
Ionia State Hospital.....	647	
Eloise Hospital.....	1,879	9,985
Mental Defect—		
Michigan Home and Training School.....	2,872	
Wayne County Training School.....	510	3,382
Epilepsy—		
Michigan Farm Colony for Epileptics.....	811	811
		14,178

In 1915 Michigan was providing 285 beds in hospitals for the insane for every 100,000 in the general population. By 1928 this ratio of beds in mental hospitals has dropped until there are only approximately two-thirds of that ratio or 213 beds per 100,000 population. In this period the population of the state has increased from 3,225,000 to 4,600,000.

In 1915 it was recognized that the insti-

tutions were becoming crowded beyond the point where the welfare of the mentally sick patient could best be served and the need of a new state mental hospital was being discussed by those best informed. No such hospital has resulted to date.

To properly handle the needs of the increased demands for mental hospital care on the basis of 285 beds for each 100,000 of general population which Michigan actually was furnishing in 1915, there should have been provided in these thirteen years while the population was growing from 3,225,000 to 4,600,000, an additional 3,990 beds. No such increase was made or anything approaching any such increase. Since July, 1919, the State of Michigan has provided by legislative enactment in all institutions in the state caring for the insane, only 113 additional beds instead of the 3,000 to 4,000 demanded by the increase in population of the state. Wayne County has provided at Eloise practically one thousand beds.

What this situation means when carried back into the community is pictured in the number of 555 insane persons already committed to the Pontiac State Hospital and the 483 to Eloise but not admitted there because there is no space available for them. Countless mentally sick are not committed because there are no hopes of getting them admitted after once committed. The suffering that is entailed in the home obliged to continue to attempt the care of a mentally sick member of the family, the unnecessary additional economic loss in that home, the ultimate loss to the state in the permanent damage done to the evolving personality of childhood obliged to suffer the inevitable psychic traumata from such a patient in the home, the delayed convalescence of the sick person himself, all these are factors not statistically recordable but important beyond dispute.

It is not desirable to introduce any spirit of sectionalism into such a calm situation as the present but it may be well to consider that whereas the number of beds in mental hospitals in the state has dropped from an originally unsatisfactory rate of 285 beds per 100,000 population to the abjectly dismal rate of 213 beds per 100,000, the Upper Peninsula of the state is enjoying today the benefits of 312 beds per 100,000 population.

In 1926, Michigan was able to admit to its mental hospitals only 62.1 patients for every 100,000 in the state's population. New York was able to offer its state hos-

pital facilities to 97.3, Illinois to 109.2 and Massachusetts to 151.6 of its citizens for each 100,000 of population. When a state, following an adequate program, has been able to admit and treat its mentally sick citizens at a point early in the disease, then understanding treatment is most effective. Experience seems to show a flattening out at least of the curve of rate of admissions suggesting that therapeutic and preventive measures applied early enough may put a stop to the gradual increase in the incidence of mental disease, at least as registered by the demand for admission.

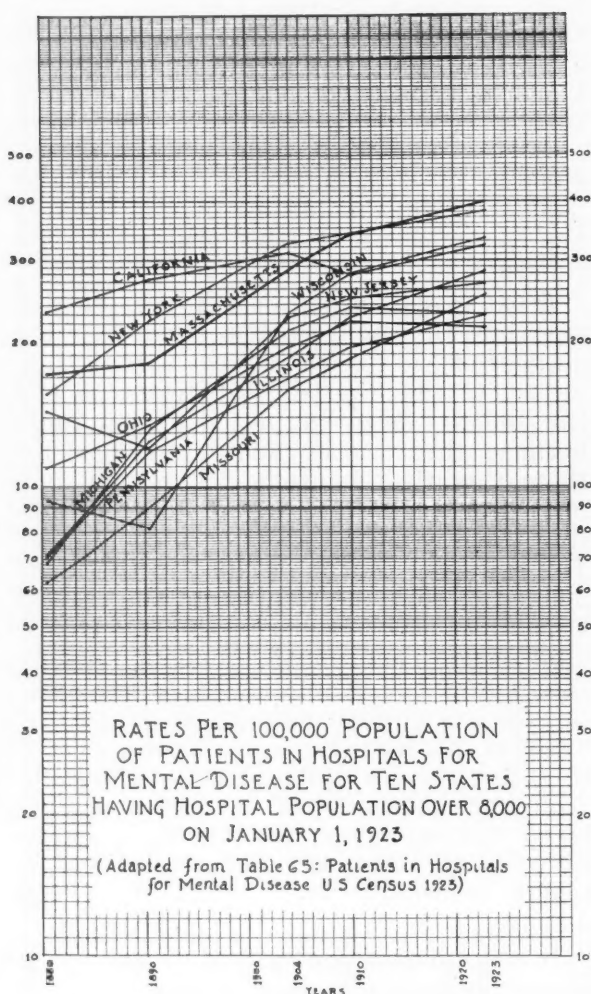


CHART NO. 2

This Chart shows the trend of provision for the care of the mentally sick in the ten states providing care in mental hospitals for the largest number of patients. It shows that all of these states with the exception of Michigan and Ohio have consistently shown an increase in the ratio of provision of hospital beds; while Michigan and also Ohio not only are the only states that have failed to show an increase in the ratio, but they have shown an actually decreased ratio.

How little Michigan has attempted to profit from any such measures is pictured graphically by the consistent changes of the past decade, a period when Michigan has been gathering international renown

for certain progress in various fields of welfare work; notably the tremendous increase in the provisions for the care of the crippled child, the care of the sick child and the sick adult, the tremendous development of its state educational system, its unprecedented concrete road program, to mention only a few of its more expensive developments. All these developments parallel its transformation from a quiet, largely agricultural state to probably the highest geared, highest speed, most specialized industrial state in the Union. Its wealth has increased. Its population has increased to where it has within its bounds the fourth city in the United States and is itself the sixth state in the Union in population. So far as any regard for the importance of the integrity of the mental health of its citizens is concerned, however, it has dropped to 28th place in the list of states in the Union arranged according to proportionate provisions of their care for the mentally sick.

This lack of adequate facilities for the care of the insane in Michigan is no new problem. We have already shown how the decline began as far back as 1915. The superintendents and the boards of trustees year after year showed in their reports to the legislature what the situation was and what was needed to meet it but without avail. The waiting list started building up way back in 1923. In May, 1924, a special committee of the State Hospital Commission, after deliberating five months on the problem, recommended to the State Administrative Board an emergency appropriation from the general fund of the state to construct immediately 400 additional beds at the Pontiac State Hospital, with such service increases in power plant, laundry, etc., as were needed, and the immediate development of Pontiac to a 2500-bed capacity, and more;

"Your Committee further recommends that this commission take the initiative in an effort to secure by legislation the establishment of another state hospital in the southeastern district, preferably in the vicinity of Ann Arbor."

Nothing resulted from this report beyond the legislature of 1925, a year later, appropriating \$150,000 for 125 beds, to be built during 1925-26 and \$250,000 for an imperatively needed power plant in 1927-28. No tax clause was added and up to this time the appropriation might just as well have not been made.

In 1926 the State Hospital Commission in its annual report preparatory to the new legislature referred to "the very inade-

quate facilities for caring for the insane in the district served by this institution (Pontiac)" and, figuring on a basis of population in this district of 1,800,000 (mind the figure! 2,154,124 was conservative for July 1st, 1926) and planning to provide beds for only 241.8 per 100,000 of population (a ratio which has been proved inadequate), concluded that facilities should be provided immediately for 4,352.4 insane in this district and recommended, in view of the probable growth of population in this district, that immediate authorization should be given to the enlargement of the present Pontiac State Hospital to care for 5,000 patients.

As a matter of fact, the Legislature of 1927 appropriated \$150,000 for some TEMPORARY patients' buildings (fire traps, if you please), and \$250,000 to toggle up an old power plant that has been pushed to its extreme limit for years. Again no tax clause was attached to provide any funds and again not a cent has been expended.

Present overcrowding in the mental hospitals I will dismiss summarily by saying that depending upon which of two sets of figures one chooses to accept, the six institutions for the insane today are overcrowded by either 819 or 1958 beds in excess of what they were built to accommodate.

Michigan needs today to raise its facilities for the care of the mentally sick to the level of that already available in the one section of the state that is caring for the demand made on it without too much overcrowding. To do this requires approximately 4,500 additional beds.

These beds require the erection of a new state hospital, strategically located, with a capacity of 2,500 beds and the addition of approximately 2,000 beds to existing institutions.

THE FEEBLEMINDED

Michigan provides at its state home for the feeble-minded at Lapeer approximately 2,900 beds. This is at the rate of 1 bed for every 1,581 of the general population of the state. There is a waiting list here of approximately 900. Wayne county at its two-year-old training school for the higher grade feeble-minded and borderline trainable child has admitted over 600 such children and has a population of 520 children.

There is greater variation in the number of beds provided by the various states for the feeble-minded than there is even for the insane, ranging from five states on January 1st, 1927, which provided no sep-

arate state institutional care for the feeble-minded to New Hampshire which in 1923 provided 88.1 beds per 100,000 general population.

No state as yet has reached the point where the number of beds it provides for the feeble-minded adequately meets the demand for admission or satisfies what is recognized as demanded by corollary social welfare programs. The demands of different states are different. The diagnosis of feeble-mindedness rests upon much more than intelligence quotient; the social constituents of the feeble-minded concept must not be overlooked, for the two main considerations the social capacity or incapacity is the more important. Consequently that small percentage of the entire feeble-minded group that requires institutionalization varies with the social standards of the state even more than in the case of the insane.

New York figures that it requires for its feeble-minded one bed in a state institution for every thousand people in the general population. It has not in the past and is not even today providing that number, but believes that if that number were provided the social acuteness of the feeble-minded problem would be met. It is now actually building to provide 10,000 beds for the feeble-minded, when it will have its one bed per 1,000 of general population.

North Carolina* has within the last two years completed a very satisfactory survey of its problem and after accepting the lower 2 per cent of the population as feeble-minded its commission remarks "that in an agricultural society or a mining population, industries which began with primitive people and to which there has been a very long period of time for racial adjustment, a larger per cent of feeble-minded would remain adjusted than would be the case in a cosmopolitan center where industries are of more recent origin, more complex, and require more thought. It may be also pointed out at this time that a native population should show a smaller per cent of feeble-minded than a foreign-born population. A population composed of a large per cent of immigrants is a population containing many who failed to adjust themselves to the conditions of their former country, and who naturally will find greater difficulty than natives in making the necessary adjustments to the condi-

* North Carolina is chosen specifically because at the time of this survey it was in a position quite the opposite of New York's position in that it was actually furnishing at that time only 11.6 beds per 100,000 population whereas New York was furnishing 67.9 beds per 100,000 population.

tions of their new country. To illustrate: North Carolina with an agricultural community and a native population should have a larger per cent of her feeble-minded population adjusted to its social environment than would likely be true of New York State with its large urban centers, its more complex conditions of life, and its large foreign-born population." North Carolina concludes from the reasons just stated that she requires not 1 bed for every 1,000 persons of her population but only at the rate of 0.7 beds per 1,000 general population.

Michigan has a high proportion of foreign-born. No state has more rapidly reversed its rural-urban population relationships. No state has more specialized industries of more recent origin. If there is any state with a diversified grouping of cosmopolitan centers where social adjustments, as well as industrial, are more complex and require more thought and quicker action than in our state where to express it symbolically we are required to dodge automobiles at a greater density per population than almost anywhere else in the world, I would like to know where it is.

We have not attempted to touch other elements in the problem of the social control of the feeble-minded problem.

Present facts show absolutely that any 0.7 beds for each 1,000 of population will not satisfy Michigan's demands. We already have 2,900 at Lapeer and a waiting list of 900 which with 500 at Northville means that nothing less than 1 bed in an institution for every 1,000 of general population will suffice.

Michigan then today requires 4,500 beds for its feeble-minded in institutions.

To summarize:

Michigan needs today the effective operation of a real program for mental health designed to elevate its facilities for the care and treatment of its mentally sick to whatever point is necessary to insure those advantages from earlier and freer hospitalization which experience has shown can be expected. It is impossible to conceive of this being at a rate lower than that of 1915 when it was at the rate of 285 beds per 100,000 of population.

Michigan needs today approximately 4,500 additional beds for the adequate care of its mentally sick citizens who are entitled to early modern hospital treatment. This can only be satisfactorily provided by a new state hospital of approximately 2,500 beds and the addition of 2,000 beds to existing institutions.

Michigan needs today an additional in-

stitution for the feeble-minded of approximately 2,500 beds. Perhaps in the emergency some of this present demand could be met by additions to the one existing state institution at Lapeer, but it is evident that this institution should not grow too big.

Michigan needs today a more modernized machinery to initiate a constant, virile, productive attack on the entire problem of mental hygiene as well as the present pressing problem of caring for the housing of the present insane and institutional feeble-minded; a more responsible central administrative machinery to see that we never get let down again into such a woe-ful state as the present.

Michigan needs today absolute assurance that opinion-forming individuals in the far corners of the state shall see to it that the legislators who are to gather in Lansing on January 1st next shall be properly informed of conditions affecting the insane and the feeble-minded that the program of rehabilitation of state institutions which the governor has all ready to present on the opening day may secure immediate support.

Mind you, the problem is going to get a lot worse before it gets any better. It is hard to conceive of any material help before July 1st, 1930, if not January or later in 1931. Even this latter date assumes more than is justified from the past fifteen years of indifference and neglect.

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LOOSE CARTILAGES IN THE TEMPORO-MANDIBULAR ARTICULATION

HARRY B. KNAPP, M. D., F. A. C. S.

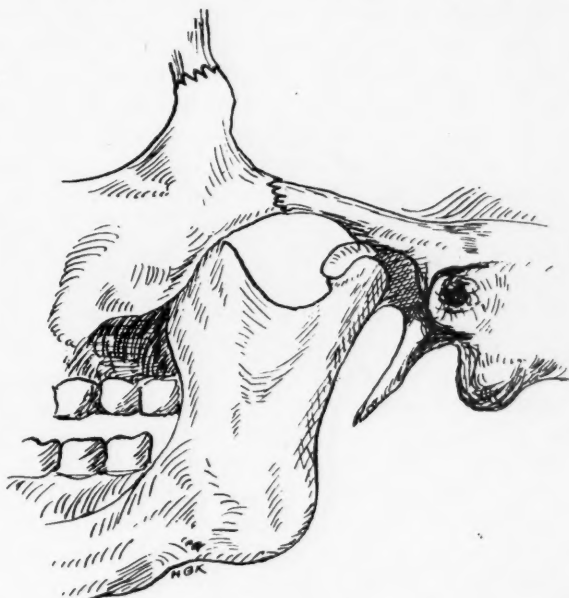
BATTLE CREEK

That displacement of the menisci of the knee joint are of fairly common occurrence is well known. No other joint of the body, however, has attained the distinction of having its cartilages ruptured

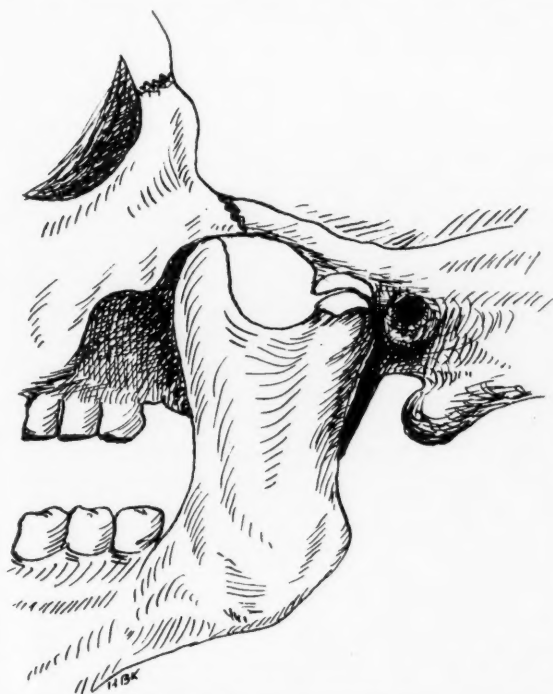
or displaced as frequently as the knee. That another joint than the knee can cause trouble from a loose cartilage is seen by the present report, but a search of the literature indicates that it is extremely rare. Ashurst, in the *Annals of Surgery*, 1921, page 761, reports a case of a young man who injured his elbow in a fall three years previously. There was persistent disability and inability to bend the elbow at times. An X-ray examination disclosed a loose cartilagenous body in the olecranon fossa. Operative removal gave complete relief. In a personal communication with Dr. M. S. Henderson, of the Mayo clinic, he stated that he had had one case of loose cartilage in the ankle joint. Ashurst also reports, *Annals of Surgery*, page 761, a case of unilateral subluxation of the mandible with excision of the inter-articular cartilage with complete recovery, and no recurrence of the trouble six months later.

J. Hogarth Pringle, in the *British Journal of Surgery* for January, 1919, reports a case of displaced disc of the temporomandibular articulation in a girl of 18,

excised, from the left joint the disc of cartilage which was loose. A report two years later showed complete recovery. In his article he also states that Annandale, in 1887, reported having operated two cases, and that Perthes, in the *Deutsche Chirurgie*, date not given, under the title, "Injuries and Diseases of the Jaw", writes of what appears to be the same condition, but



Illustrating the antro-posterior movement of the mandible. The condyle is resting on the eminencia articularis.



Illustrating the hinge motion or up and down movement of the mandible.

no method of cure for this trouble is described.

Sir Astley Cooper in his "Treatise on Dislocations", page 393, says, "As in the knee, the thigh bone is sometimes thrown from the semi-lunar cartilages, so the jaw appears occasionally to quit the inter-articular cartilage of the temporal cavity, slipping before its edge and locking the joint with the mouth opened." Regarding the treatment he says, "Force for removing these appearances must be applied to give an opportunity for the cartilage to replace itself upon the rounded extremity of the condyle process."

It is difficult to be certain of the actual condition within the joint when the disc is displaced. The disc, when loosened, acts as a foreign body in the joint, and when it becomes caught, produces symptoms not unlike those of dislocation of the jaw, for which it is commonly mistaken.

Blair, in his "Surgery of the Mouth and Jaws," page 152, states that it is not uncommon for the condyle to catch every time the mouth is opened widely, and to recede with a cracking sound. This, he thinks, in older people is due to arthritis, but in young persons, with lax ligaments,

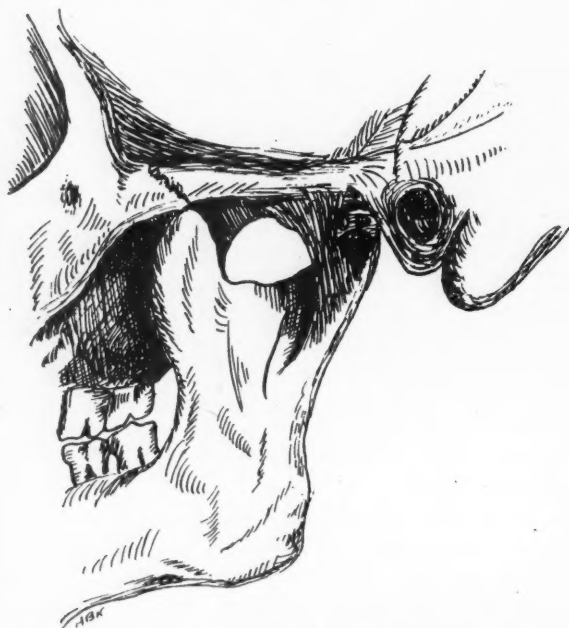
who, in May, 1910, complained of pain and a loud cracking noise in the left mandibular articulation which came on following the extraction of some teeth a few months previous. The jaw would become caught with the mouth wide open after yawning or sneezing, and after manipulation, would close with a snap. After a year of increasing annoyance from this trouble Pringle

to be due to either a subluxation or a catching of the meniscus. For treatment he recommends tonic measures and limiting the motion of the jaw until the ligaments regain a healthful tone.

ANATOMICAL CONSIDERATIONS

The meniscus of the mandible is dome-shaped, fitting with its convex surface into the sinuous articularis of the temporal bone. Its deeply concave under-surface is closely applied to the convexity of the condyle. It is thickest at the top of the dome and thins off at the edges and becomes lost in the fibrous tissues of the capsule of the joint. The disc divides the joint into two cavities, each having its own synovial membrane. In a normal joint the condyle and the meniscus move together in all positions of the joint with a gliding movement which takes place in the lower cavity.

The jaw has three principal motions, viz, a hinge motion between the condyle and the inter-articular cartilage, and an antero-posterior movement which takes place between the inter-articular cartilage and the eminentia articularis, the cartilage being carried forward with the mandible. The third movement is rotary in action,



A diagrammatic sketch of the left mandible, showing the capsular ligament opened up and disclosing two small cartilaginous bodies in the joint cavity.

which occurs in chewing. The condyle of one side remains in the glenoid cavity while that of the other rises on the articular eminence. A line passing from one condyle to the other represents the radius of rotation.

The ligaments which make up the capsule of this joint are the chief factors in limiting the movements of the jaw. They consist of the anterior, posterior, internal and external ligaments, which form the joint capsule. The anterior is weakest and readily ruptures in dislocations, which occur when the mouth has been widely opened and the condyle rides forward on the articular eminence. When dislocation takes place the condyle jumps forward with an extensive rotation on a transverse axis. Once out of its socket it is held by the spasm of the external pterygoid muscle as well as the temporal and masseter.

Derangements of the jaw most invariably follow a yawn, a sneeze, or a side blow on the jaw. A straight blow on the point of the chin, while capable of producing unconsciousness from concussion, almost never deranges the joint mechanism, or produces dislocation.

A lateral blow on the jaw while the mouth is open is likely to loosen the disc and makes way for trouble later on. A loosening of a part of the disc, by the breaking off of a small piece of the cartilage, or of a thin wedge of the cartilage, the so-called bucket-handle fracture, produces a condition which disturbs the joint function and allows the loosened cartilage to intervene in the hinge of the joint between the movable condyle and the glenoid fossa of the temporal bone. With the cartilage caught, the mouth is prevented from closing and there is a sharp sudden pain on the affected side. Trauma of the synovial lining of the joint results in a synovitis with a stretching of the capsular ligaments, similar to that seen in the knee when it assumes this role. The external swelling and tenderness are about the only objective signs which appear as sequelae.

CASE REPORT

On January 5, 1928, was called to see a girl of 18, who, while yawning, apparently dislocated her jaw on the right side. The mouth was locked wide open, and there was excruciating pain in the right side of the face. While attempting the usual procedure for reducing a dislocated jaw the joint unlocked with a snap and the patient was relieved. Following this the temporo-mandibular joint was swollen and tender. The next day the jaw again became fixed with the mouth wide open, and from this time on it became a daily occurrence whenever she would talk, laugh, or yawn, or while eating. The patient learned to unlock the jaw quite readily, but in two or three months it became a matter of reducing it as many as 30 or 40 times a day. The painfulness of the condition varied inversely with the frequency.

An attempt was made to obtain relief by wiring

the teeth together, and for six weeks this was tried. The relief was only temporary. An X-ray was taken of the jaw both in the normal position and with the jaw locked in the fixed position (see plates I and II) which did not show any change in the location of the condyle from its place in the glenoid fossa.

This annoying condition led to the belief that only surgical measures would give relief and this was undertaken with no very definite idea of what was to be done. A relaxed capsular ligament



Plate I

Radiograph print of jaw showing mouth locked open with condyle in normal position in glenoid fossa.



Plate II

Radiograph print of jaw replaced, mouth closed in normal position.

seemed to be the most likely condition needing correction.

Operation—Under ether, an incision was made over the right temporo-mandibular joint extending upward and forward over the zygoma. The capsule of the joint was exposed, but it could not be demonstrated to be relaxed, and any manipulation of the jaw did not reproduce the locking. An incision, however, through the joint capsule readily disclosed the cause of the trouble. Two small pieces of cartilage presented themselves in the joint, and were attached by a thin fibrous pedicle. They were snipped off, and as no others could be found, the capsule was closed with No. 1 chromic catgut. The wound was closed and healed promptly. After ten days the bandages were removed and the patient was allowed to use her jaw. No further trouble has been experienced, and the result is all that could be desired.

BLADDER WOUNDS—A REPORT OF ELEVEN CASES

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The relatively large number of bladder injuries seen during our recent service at the Detroit Receiving Hospital has made me wonder whether prohibition, the automobile and the crime epidemic in our modern cities are not increasing these serious injuries, and has prompted me to review them at this time and call attention to some of the chief points in diagnosis and treatment.

No attempt is made to present anything especially new on the subject, but these cases all emphasize certain features that have a very important bearing in the treatment of bladder wounds.

Though Homer, in the *Iliad* refers twice to this accident as being rapidly fatal, and Hippocrates, Aristotle and Galen recorded similar conditions, a search into the literature will attest to the rarity of these injuries. In Hagnar's¹ contribution to the subject of bladder injuries, he calls attention to the fact that taken collectively they are rare in surgical practice and though much is written on the subject, it is probably due to the seriousness that the older surgeons attached to this injury when the intraperitoneal varieties at least were believed to always terminate fatally. Evans and Fowler², whose statistical study of these cases may be looked upon as standard, state that among 10,867 surgical cases treated in the Bethany Hospital in eight years there were only three cases of bladder injury, while only two such cases occurred among the 16,711 surgical cases admitted to Bartholomew's Hospital in 25 years.

The bladder, owing to its location is peculiarly immune from direct or indirect violence and it is generally agreed that, excepting the violence done by cystoscopes, lithotrites or during operative procedures, the bladder is but little liable to injury except when overdistended. In the 408,672 surgical cases reported in the Civil War, not a single case of incised, punctured or lacerated wound of the bladder was reported, and there were only 183 of bullet wounds of the bladder. Even in the fierce hand-to-hand fighting on the battlefield the bladder escaped injury.

During the World War wounds of the bladder were very frequent. The Medical Department of the United States Army reports about 0.08% during 1917-18³, while

other French, English, German and American surgeons report about the same per cent in their records. Indeed, as Hagnar¹ says, the history of surgical treatment of bladder injuries reflects in a very convincing manner the highly progressive stage which modern surgery has attained in the care of these conditions. It is significant to note that Bartel's⁴ report of 131 intraperitoneal bladder wounds all terminated fatally except Walther's case in which he did not suture the peritoneal wound and which marked the turning point in the treatment of bladder injuries.

PREDISPOSING ETIOLOGY

In all forms of bladder injuries whether intra or extraperitoneal, the over-distended bladder is the most vulnerable, though the empty bladder is not immune. The exciting causes are: Falls, blows, crushing injuries with or without fracture of the pelvis. The patient is frequently intoxicated, which predisposes to rupture by causing the bladder to fill rapidly, decreases the sensibility and facilitates the injury. Bladder ruptures are more frequently intraperitoneal caused generally by a blow over the hypogastrium, bursting the bladder much in the same manner as a paper bag bursts from a blow. Peritonitis is almost inevitable after intraperitoneal rupture, and if the urine is infected, it manifests its symptoms immediately. If not, the peritonitis may be delayed several days, or may even fail to appear altogether, especially if the amount of urine extravasated is small.

Attempts at securing reliable histories are, as a rule not successful, as these patients are either intoxicated or in shock when first seen, hence close attention must be given to all signs that they may be interpreted intelligently.

SYMPTOMS AND DIAGNOSIS

While the symptoms and diagnostic features of wounds of the bladder are in many respects the same as those of rupture of the bladder, there are certain features associated with wounds of this organ which make it advisable to consider the symptomatology of the two conditions separately. In all cases of injury in the vicinity of the bladder the most important questions to be settled as soon as possible are the following two:

1. Is the bladder itself involved by the injury?
2. Is the injury intraperitoneal or extraperitoneal?

After the receipt of an injury which causes a wound of the bladder, the patient usually experiences a more or less pronounced degree of shock. Pain in the lower abdominal region may be very severe. Excessive desire to void urine, but inability to do so is a very frequent symptom. A symptom especially emphasized by Wichmann⁵ is namely, the absolute helplessness of the patient with inability to walk. This helplessness may reach the stage of complete collapse. Blood may be mixed with the urine and seen escaping from the external wounds in varying quantities, the escape of urine becoming clear only after a day or two. Usually the wound channel can be readily followed by a probe for varying degrees of depth, even into the bladder, which thoroughly establishes the diagnosis. If the injury was received in a full and distended bladder which collapses following the escape of the urine through either natural or unnatural channels the diagnosis and objective signs are more difficult to recognize. The symptoms of a classical case of bladder rupture have been well summarized by Besley⁶ as follows:

1. At the time of injury there is immediate severe pain in the abdomen, sometimes a distinct sense of something tearing or giving away. This is described by the patient as being in the lower part of the abdomen, or occasionally referred to the region of the heart. The severe pain felt at the onset is usually continuous. Marked symptoms and signs of collapse are quite constantly found.
2. The patient is unable to walk or walks with great difficulty.
3. One of the most important and constantly present symptoms is the strong desire accompanied with the inability to void urine. A few drops of blood or bloody urine usually pass from the urethra. Not infrequently, however, the patients are able to void urine in either an extraperitoneal or intraperitoneal rupture. Bloody urine was a marked sign in every case of this report.
4. The subsequent course of the disease and the symptoms depend upon the location of the rupture and the direction of the extravasation. If the tear is intraperitoneal, the course will be that of a peritonitis with obstipation, vomiting, and high pulse and temperature. It must be borne in mind that the temperature curve is only one item and the presence or absence of fever is not absolutely diagnostic for or against peritonitis. When the rup-

ture is extraperitoneal the symptoms are those due to an extravasation of urine into the tissues, giving rise to the absorption of the poisonous properties of the urine and the toxins of the accompanying sup-puration. The symptoms are those of sepsis with chills, high pulse, irregular temperature curves, headache, and gastro-intestinal disturbance.

DIAGNOSIS

Injury to the bladder may be suspected when a patient has received a contusion of the hypogastrium, fracture of the pelvis, bullet wounds of this region or through the buttocks, and thereafter either passes bloody urine or no urine at all; when a patient in alcoholic stupor shows undue rigidity and tenderness about the hypogastrium and catheterism draws no urine or bloody urine; when a patient known to suffer from a grave bladder lesion complains of sudden, severe hypogastric pain, thereafter strives in vain to urinate.

PALPATION

Palpation of the hypogastrium at the onset reveals rigidity and tenderness. Later the space of Retzius may be filled by a doughy sensitive infiltrate (extraperitoneal rupture), or the rigidity and tenderness may extend to the whole abdomen (intraperitoneal rupture). If the rupture

is extraperitoneal, rectal palpation may reveal tenderness and infiltration.

CATHETERIZATION

The catheter usually withdraws a little bloody urine. If catheterism is impossible because of ruptured urethra, immediate perineal section should be performed. The test which has been used by some authors of filling the bladder and measuring immediately the return flow, has been found by us to be misleading because in some injuries the wound in the bladder may be quite small and the leakage slow, or the catheter may be pusted through the bladder wound into the peritoneum. Injection tests of air have been condemned by Keyes as a misleading diagnostic feature, as he has found it to suggest rupture of the bladder when none existed.

CYSTOSCOPY

Cystoscopy should always be resorted to if there is any doubt as to the diagnosis. The objection to cystoscopy that it results in injection of the solution used to fill the bladder into the peritoneum or the pelvic cellular tissue need not be considered. If the bladder is actually ruptured, it must be operated upon immediately in any case and the dilution of the urine that has already escaped with a little sterile fluid can do no harm.

Case No. and cause of injury	Type of bladder injury	Complicating injuries	Pre-operative delay	Procedure	Result	Remarks
No. 1 Bullet wound	Intra-peritoneal	Nine perforations of ileum	Four hours	Bladder sutured, suprapubic drain	Death	
No. 2 Bullet wound	Intra-peritoneal	Perforations of small intestines	Three hours	Original wound sutured, Pezzar drainage	Recovery	
No. 3 Bullet wound	Extra-peritoneal	Perforation of rectum	Four hours	Bladder closed; suprapubic drain four days later	Recovery urinary and fecal fistulae	
No. 4 Kicked over pubic region	Extra-peritoneal	Fractured pelvis	Thirty hours	Wound not sutured, Pezzar drainage only	Recovery	
No. 5 Auto accident	Intra-peritoneal	Fractured femur (compound)	Twenty-two hours	Bladder closed; Pezzar drainage	Death	
No. 6 Auto accident	Extra-peritoneal	Fractured pelvis	Thirty hours	Bladder packed; suprapubic drain	Death	
No. 7 Auto accident	Extra-peritoneal	Fractured pelvis	Two weeks	In no condition for surgery	Death	
No. 8 Elevator accident		Fractured pelvis	Four hours	Bladder closed; Pezzar drainage	Death	
No. 9 Unknown, probably instrumental	Intra-peritoneal	None	?	Bladder closed; Pezzar drainage	Death	
No. 10 Bladder incised during herniotomy	Extra-peritoneal	None	Twenty-four hours	Bladder closed; Pezzar drainage	Recovery	
No. 11 Fall	Intra-peritoneal	None	Four days	No operation	Death	Injection of bladder with fluid and return amount about the same, test was misleading

EXPLORATORY OPERATION

If there is any doubt, the abdomen should be opened in the median line and the tissues inspected about the bladder. If no evidence of bladder wound is found extraperitoneally, the peritoneum should then be opened.

TREATMENT

When the diagnosis is established, there is no other treatment than immediate operation; when it is in doubt, an exploratory operation affords the quickest and surest means of reaching a conclusion that must be reached quickly if at all. The only contraindications to operation are shock and grave visceral injury, and if an infusion of salt solution improves the general condition, the operation should be performed even in shock.

PROGNOSIS

Among Mitchell's 90 cases of extraperitoneal rupture of the bladder 37 were operated upon and 24 of these died (64.9%), while of the 53 treated expectantly, 51 died (96.2%). Sieur collected 34 cases of intraperitoneal rupture, all of which were operated upon and showed a mortality of 58.8%. Without operation practically all would have died. All statistics encourage early operation so markedly as to call for no comment. Doubtless the relatively low operative mortality of intraperitoneal, 58.8%, as compared to extraperitoneal rupture, 64.9%, may be due to the fact that the immediate gravity of the peritoneal cases enforces early operation, while the slower progress of extraperitoneal ruptures encourages ill-advised delay.

CASES

Of our group of cases the following records emphasize most of the salient facts:

Case No. 1, Detroit Receiving Hospital No. E 1259—White, male, age 30, admitted 4 p. m. January 31, 1927. While attempting a hold-up he was shot through the back by an officer.

Physical examination—He was a well developed and nourished male who was in shock. The heart sounds were weak, rapid, and of poor quality, the remainder of the examination was negative to the abdomen, which was rigid and tender, especially over the right quadrants. Free fluid could be demonstrated in the lower abdomen. There was a gunshot wound in the back over the left sacral region. The reflexes were sluggish and the patient admitted that he was addicted to the use of morphine.

The urine obtained per catheter was bright red and the microscope showed this to be due to red blood cells; it was acid in reaction.

The patient was taken to the operating room immediately and under ether anesthesia an incision was made just about the symphysis pubis

extending upward about 1½ inches. The bladder was explored and found to contain two holes, the result of a through and through gunshot wound. These holes were closed with three purse-string sutures of No. 0 chromic catgut. A mushroom catheter was inserted into the opening, which was just at the line of incision. The incision was then closed with a drain in the space of Retzius. A right rectus incision revealed nine perforations in the ileum.

The condition of the patient was never good and he died at 6:40 a. m., February 2, 1927, after every known method of stimulation failed.

Even though operative interference followed very shortly, there was too much damage to the intestines. This case illustrates a point made by Fullerton, who says that gunshot wounds of the buttock must be regarded with utmost suspicion as an intraperitoneal wound of the bladder. Intraperitoneal wounds of the bladder are nearly always associated with other intraperitoneal injuries.

Case No. 2, Detroit Receiving Hospital No. E 343—A white male, age 42, who had been shot in the right buttock, was admitted at 3:00 a. m., January 9, 1927.

Physical examination—Was normal to the abdomen, which was tender and rigid throughout, but more marked in the lower quadrants. There was a palpable mass in the right lower quadrant.

A three-inch right rectus incision down from the umbilicus revealed the abdomen to be filled with a bloody fluid. There was a loop of small bowel found to be adherent to the bladder, which, when removed, showed a rent in the bladder wall about one-half inch long. This, as well as the rent in the bowel, was repaired and a mushroom catheter was inserted through a new opening in the bladder and the abdomen closed in layers.

Recovery was uneventful.

This case again illustrates the frequency of bladder wounds in connection with gunshot wounds of the buttock.

Prompt diagnosis and treatment in this case saved a life.

Case No. 3, Detroit Receiving Hospital No. D 10542—A colored male, age 37, admitted to the hospital at 5:30 p. m., September 4, 1926, following a gunshot wound.

The wound of entrance was in the L. L. Q. three F. B. above the inguinal ligament and three or four F. B. to the left of the mid-line. The wound of exit was in the right buttock on a level with, and just lateral to the ischial tuberosity. He was not in shock, his pulse and temperature was not elevated. His abdomen was not especially tender and there was no rigidity of the recti muscles; however, there seemed to be some bulging of the flanks and a shifting area of dullness.

An exploratory laparotomy with a three-inch right rectus incision revealed no intraperitoneal perforation, but a marked hematoma was noted. When the space of Retzius was explored a large amount of urine escaped. The peritoneum was closed without drain, but a cigarette drain was placed in the space of Retzius and the patient was put to bed. There was a free drainage of blood from the wound in the buttock, and of urine from the cigarette drain.

September 8, 1927, a suprapubic cystotomy was performed and perforations were found in the right posterior wall of the bladder which could not be sutured and as it was impossible to pass a sound through the urethra a Pezzar catheter was fastened in the bladder for drainage.

After a stormy convalescence with the development of a fecal as well as a urinary fistula, the patient was finally discharged to the out-patient department, December 20, 1927, where urethral dilatation was continued.

This case is another illustration of the frequency of bladder injury in gunshot wounds of the buttock.

Case No. 4, Detroit Receiving Hospital No. E 998—A white male, age 36, intoxicated, was admitted to the psychopathic ward at 6:00 a. m., January 25, 1927. The following morning he complained of pain in the lower abdomen, and said that he had been kicked there by his wife the previous day. The patient said that the pain had subsided some. There had been no stool since admission and he had vomited a sour-smelling material twice.

Physical examination was negative as to the abdomen, which was flat, with the exception of an erythematous area in the lower quadrants, especially the right, which resembled the erythema produced by the long continued application of heat. There was some tenderness throughout the entire abdomen, but much more marked in the lower quadrants, the maximum tenderness being in the right. The erythematous area, the borders of which were slowly advancing, was boggy to palpation. The scrotum on the right was slightly enlarged and seemed to contain some fluid. His temperature was 100.8, pulse 120 and irregular. At 1:00 p. m., a catheter revealed a dark bloody urine containing some clots.

Under anesthesia we passed a catheter and found a moderate amount of urine containing a few shreds of clotted blood. When the bladder was filled with sterile water we could recover as much as was instilled. In spite of this fact a suprapubic incision was made which showed the tissues of the abdominal wall and the space of Retzius to be saturated with urine. However, no rent could be found in the bladder wall from the exterior, so it was then opened. Digital examination revealed a small break in the mucosa of the vesical neck, also a separation of the symphysis pubes, and what seemed to be a fracture of the right ramus of the pubis. Because of the small size of the rent we considered that drainage would be sufficient, so cigarette drains were placed in the space of Retzius and a Pezzar catheter fastened in the bladder.

Recovery was uneventful.

This case illustrates three important points:

First, incision to explore the suprapubic region, as recommended by Alexander, i. e., incision through the suprapubic region into the space of Retzius and exploration of the prevesical space should be done. If no extraperitoneal wound is found, then open the peritoneum and look for intraperitoneal injury.

Second, that the test used by some of filling the bladder and measuring the return flow is misleading. Here we were able

to recover as much fluid as we instilled into the bladder.

Third, it is not necessary to suture a small extraperitoneal wound if drainage by a tube is effected.

Cast No. 5, Detroit Receiving Hospital No. D 15167—A colored female, age 26, married, admitted 10 p. m., December 25, 1926, after being struck by an automobile. She has had one normal delivery.

A compound fracture of the right femur was given support in a Thomas splint and she was put to bed. She complained of pain throughout the entire abdomen and nausea, but no vomiting. This pain became more severe, the abdominal wall more tender and quite rigid, especially in the right lower quadrant. Nothing was given by mouth because of suspected internal injuries. Until the time that she was referred to our service, some 20 hours after admission, had not voided, nor had any urine been obtained by catheter. When we saw her she was in much pain, the abdomen was moderately distended and tender. There was some rigidity, but no evidence of fluid could be elicited. At this time her pulse was 80, temperature 98.6, W. B. C., 14,800, with 80 per cent of Polys., and 12 per cent Monos.

At 8:30 p. m. under gas-ether anesthesia, a four-inch incision was made below the umbilicus, and the peritoneal cavity found to contain a large amount of urine, which had escaped from a rent found in the superior surface of the bladder. This was closed and a Pezzar catheter was placed in the urethra, also drains in the peritoneal cavity.

The patient lingered for several weeks, but finally died of septicemia, to which an osteomyelitis of the femur was a very large contributor.

Case No. 6, Detroit Receiving Hospital, No. F. 3260—This patient, a male, age 27, was admitted March 12, 1928, at 12:15 p. m., following the collision of an automobile and street car. He was in a semi-conscious condition.

His past history was negative.

Physical examination was as follows: There was a contusion over the left temporal region. Pupils equal and regular and they reacted to light and accommodation.

Abdomen: There was a contusion over the left posterior superior iliac spine. There was marked tenderness over the left pelvis, as well as over the lower lumbar and sacral vertebra. The point of greatest tenderness was over the left superior spine of the pubis.

X-Ray—Skull: Linear fracture of the left temporal region. Pelvis: Fracture of the left pubis and ischium with the fragments in good position. Lower spine: Longitudinal fracture of the left half of the sacrum with no displacement.

Laboratory: Wassermann was negative. Urine was bright red with blood.

Because of the X-ray findings of a fractured pelvis, and a general distention of the abdomen, it was suspected that the patient had a bladder rupture. The patient, however, was able to void, and when the catheter was introduced, without difficulty into the bladder, about 16 oz. of bloody urine was withdrawn. A cystoscopy was done and both ureters were catheterized. There was no evidence of bleeding from the kidneys. A wound was found in the dome of the bladder. A suprapubic incision was immediately made, and upon retraction of the rectus muscles a gush of bloody urine followed. A large rent was found in the

bladder. There was a large clot of blood, which plugged the opening in the bladder. This probably accounts for the fact that the bladder was able to retain the large amount of fluid. Because of the free hemorrhage deep in the wound it was deemed advisable to pack, rather than to suture the bladder around the tube. Two large packs were introduced, and the wound was drawn together with silkworm sutures through the rectus muscle and skin.

The patient was able to void small amounts at all times before and after operation, in spite of the fact that there was a pack in the bladder.

At no time while under our care was the patient's condition good.

He died April 12, 1928.

This case especially illustrates the value of the cystoscope in the diagnosis of ruptured bladder. There were several of the staff who suspected that the bleeding was coming from the kidney and that the bladder was not injured. That is the reason why he was not referred to our service sooner.

In this case again we have an example of the misleading conclusions that could have been drawn by ascertaining the ability of the bladder to hold a fluid.

It is interesting to note that this patient was able to void at all times, even though the amount was not great, a symptom that is usually considered as pathognomonic, i. e. inability to void.

Case No. 7, Detroit Receiving Hospital No. E, 579—A colored male, age 39, admitted to the hospital January 14, 1927, said that while riding in a truck he fell off and was run over by the truck.

Physical examination—He was in shock, there was considerable bleeding from a perineal wound which extended into the rectum. This bleeding was controlled and he was put to bed.

There was some distention of the abdomen, but no rigidity. There was pain on deep palpation over the right pubes and inguinal region.

X-ray showed the pelvis to be fractured in several places, as well as a fracture of both bones of the right leg.

On January 23, 1927, he developed an incontinence of urine.

He was referred to our service on January 28, at which time his condition was very poor and it was thought unwise to interfere surgically. An indwelling catheter was inserted and he was put on urotropin and sodium acid phosphate.

He expired suddenly January 31, 1927.

This patient was seen too late for operative interference.

Case No. 9, Detroit Receiving Hospital No. E, 80—This patient, an elderly white male, was admitted to the hospital at 6:30 p. m. January 2, 1927, with the complaint that he could not pass his water. He could not speak English, but with the aid of an interpreter it was found that he had never had a retention before and that he had never had hematuria, but that he had been having nocturia for the past five years. There was no history of injury.

Physical examination revealed an adult male who was over weight. The chest was emphysema-

tous. The heart was slow and irregular, the tones poor and indistinct, but there were no murmurs or increased areas of dullness. The abdomen was tense and rigid with dullness over the pubes, extending up to the umbilicus, and tender throughout.

Genitalia: Negative, save for a phimosis.

Rectal Examination: Prostate was enlarged.

Blood Pressure: 142/84.

Blood Chemistry: Dextrose, 124 mg. per 100 c.c. N. P. N., 62.7, Urea, 63.9, Creatinin, 2.2. Blood count, W. B. C., 16,100, with 80 per cent polys.

Attempts to catheterize the bladder were reported to be unsuccessful and that even a filiform could not be passed beyond the bulbo membranous junction. However, we were able to pass a Coude catheter after the use of a local anesthetic in the urethra and obtained a very small amount of bloody urine. Because of this and due to the fact that the distention was increasing, a diagnosis of rupture of the bladder was made and the patient was taken to the operating room at 10:50 p. m., January 3, 1927. A three and one-half inch incision from the symphysis up the midline was made. On opening the deep fascia and splitting the rectus muscle, urine gushed into the operative field. This apparently was coming from the presenting viscus, which was of a very dark color, the vessels standing out markedly. Further examination proved this to be a thickened peritoneum. Farther search revealed the bladder to be low in the pelvis behind the symphysis with a large rent in the anterior surface. A Pezzar catheter was placed in the bladder in a retrograde manner through the urethra, and drains were placed in the peritoneal cavity and space of Retzius.

A very stormy time followed and after developing a marked distention the patient's temperature suddenly rose to 105. He died at 8:30 a. m., January 7, 1927.

We believe that the cystoscope would have been of considerable value in assisting us to make an earlier diagnosis in this case. Because of our inability to secure the patient's best co-operation it is impossible to be sure of the cause of injury in this case, but we suspect that the injury followed a previous attempt at instrumentation.

CONCLUSIONS

1. Bladder wounds and injuries are on the increase and should always be kept in mind.
2. It is not safe to draw conclusions from the amount of fluid returned after injecting a known volume into the bladder.
3. Whenever possible, the cystoscope should be used.
4. When in doubt an exploratory operation should be performed.
5. In doubtful cases the suggestion of Alexander to first rule out extraperitoneal wounds by carefully exploring the pre-vesical space before opening the peritoneum is, I think, a good one.

6. When the diagnosis has been made operative interference must be prompt.

7. Too much time should not be spent trying to repair inaccessible wounds for, with good suprapubic drainage those wounds will heal.

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OBSERVATIONS ON LUPUS ERYTHEMATOSUS

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In the domain of dermatology three dermatoses have principally engaged the attention of clinicians and dermatologists on account of their refractoriness toward therapeutic intervention and their etiologic uncertainty; viz., psoriasis, pemphigus and lupus erythematosus. The latter has received more consideration and has been studied with greater care than the former on account of its disputed relationship with the tuberculodermata, upon which we intend to dwell elsewhere in this article. The purpose of this essay is to give in a limited scope, a succinct resume of our knowledge of lupus erythematosus in its various aspects, with special reference to its etiology and therapy.

In defining lupus erythematosus, one is confronted with a deplorable lack of uniformity in the classification of cutaneous diseases. There is such a diversity of opinion, so much of the personal injected, that no two classifications agree. Some authorities relegate it to the domain of inflammations, while others insist it should belong to the hypertrophies. Therefore, in defining this disease, one is unwilling to accept its nomenclature, let alone the classification to which it belongs. But lupus erythematosus is such a time-honored and traditional designation, that one hesitates to change it; still Unna has so appropriately and clinically named it, that anything else seems rather meager and inadequate. His terminology for this

dermatosis is *ulerythema centrifugum* from "oule," scar, since erythema, superficial cicatrization and centrifugal extension are its most significant characteristics. Moreover, the term lupus leads to confusion with tuberculosis, which is, as yet, a debated question. We plead for this more descriptive designation and trust that the Congress of Dermatology, at its next meeting, may adopt it.

The definition of this disease should therefore be based upon Unna's descriptive and classical terminology, i.e.: A cutaneous disease characterized by erythematous areas, covered with grayish-white scales, terminating in scar formation without preceding ulceration, and characterized by centrifugal extension.

According to the literature examined by us, it would seem that lupus erythematosus constitutes about .31% of all dermatological cases, although Hazen gives a larger figure, bringing it up to .33%; thus it is not such a very rare cutaneous affection as some authorities would regard it. Very often it is not readily recognized, especially in its incipient stage, when the pathognomonic signs are not so readily discernible as during its progressive course.

ETIOLOGY

Lupus erythematosus—of which there are two types: (1) chronic and localized, and (2) disseminated—is an inflammatory disease of probably toxic origin.

Chronic localized or fixed type. This is the more common form of the two. It occurs in both sexes, but is perhaps five times more frequent in the female than in the male. In about 40% of the cases the disease begins in the third and fourth decades. In about 25% it occurs between the ages of 20 and 30, and in about 20% it occurs between the ages of 30 and 40. While rare in children, it has been diagnosed as early as the fifth year. It is exceedingly rare for two members of the same family to be affected. A history of tuberculosis in the family is quite often elicited. Evidence of tuberculous infection is present in at least one out of every five patients having this disease—usually in the form of cervical or bronchial adenopathy, scars of abscesses or bone and joint affections; but pulmonary tuberculosis or extreme loss of weight are rarely found.

The etiologic factor of tuberculosis, however, is still a mooted question and there is considerable diversity of opinion as to the exact relationship of the localized type of lupus erythematosus to tubercu-

losis. Some believe it to be a tuberculous exanthem, and this view is somewhat supported by the production of tuberculosis in guinea pigs by the inoculation of material obtained from patients. This has been successfully accomplished by Gougerot. On the other hand, it is particularly and exceedingly rare to obtain a positive reaction with tuberculin injected into the patient, although in some of our patients the reaction was positive. Calmette's ophthalmic test gave a *positive* reaction in fourteen cases out of a series of twenty. In none of these patients, however, could there be found any clinical evidence of tuberculosis either in the viscera or elsewhere. For the present it seems best to look upon lupus erythematosus of the fixed type as *toxic*, or that a tuberculous toxin may be one of the causes.

More recently Barber and others have brought forward the view that lupus erythematosus is caused by focal infection by the streptococcus hemolyticus, the foci being in the roots of the teeth, in the tonsillar crypts, nasal sinuses, the prostate or intestines. Streptococcal infection may, therefore, be included as a possible cause of lupus erythematosus. Dyson reports that some types of this disease react locally to a tuberculin ointment and that others react to a streptococcus ointment. The etiology is therefore obscure; and it may prove, as Gray suggests, that lupus erythematosus is due to a specific organism, which is favored by certain pre-existing conditions, of which tuberculosis is one.

DISSEMINATED LUPUS ERYTHEMATOSUS

This form occurs usually in females; it is rarely seen in males. It chiefly affects young women between the ages of 14 and 30. In over 60% of the cases there is clinical evidence of tuberculosis, i.e. affection of the glands, scars of abscesses, loss of weight or pulmonary tuberculosis. It is usually thought that this type of lupus erythematosus is an exanthem, and there is some evidence in support of this view. There are some cases, however, in which tuberculosis seems to be definitely excluded. The family history is positive for tuberculosis in about 80%. In many cases no exciting causes can be determined, but there are many instances on record in which the eruption started apparently as the result of mental or psychic trauma. The possibility of the non-tubercular origin of some cases must not be overlooked. Streptococci have been found in the blood in some cases, but this is not

uncommon in other forms of grave illness or in the moribund.

PATHOLOGY

Lupus erythematosus is a peculiar form of inflammation of the skin—the inflammatory process beginning in the vascular layer about the sebaceous and coil glands, and sometimes around the follicular orifices. There is a hyperemia of the corium and, later, cellular infiltration about the vessels. The infiltration consists of round cells, mast cells, plasma cells, and, rarely, giant cells. Lymph channels traversing the cellular infiltrate are frequently observed. Finally the infiltration undergoes cicatrization, which leads to the destruction of the glandular elements of the skin, including the hair follicles. The tubercle bacillus has never been detected in the tissue.

SYMPTOMATOLOGY

In considering the symptomatology we must bear in mind two distinct varieties of this affection: the *acute* and the *chronic*. The former is usually widely disseminated, while the latter is zonal or focal in character, i.e., invading small portions of the skin or merely localizing itself to one single area. The acute or generalized variety is rarely met with an usually terminates fatally. There is another sub-variety, termed the *telangiectatic*, with no apparent cutaneous disturbances, save an intense erythema or reddening of the skin accompanied by dilatation of the capillaries. When the erythema has subsided, a distinct white scar is left. Whether this is really a type of lupus erythematosus or a distinct entity per se, dermatologists are still at variance. In all these types there are no marked subjective disturbances; occasionally a patient will complain of slight burning or tingling sensations, but in the vast majority of cases there is very little discomfort.

The clinical forms in which lupus erythematosus commonly appear are the *erythematous* and the *discoïd*; the latter is also sometimes called the *scaly* form. Both of these may appear simultaneously or else the disease may consist solely of one form.

The *erythematous* type manifests itself in the appearance of more or less concentric lesions, that are somewhat raised above the surface of the skin and erythematous in nature. Their concentricity and centrifugal extension remind one of tinea circinata, to which they bear a striking resemblance, owing to the lesions tending to flatten in the center. Their elevated

borders exhibit a peculiar redundancy, which gives one the impression of "stippling". After existing for months, they gradually disappear leaving behind superficial atrophy or scarring.

The erythematous form attacks preferably the hands and fingers. In one of our cases the palms and the fingers were actually studded with erythematous-scaly lesions. Concomitant with this case there were also discoid or scaly lesions on the elbows, ears, cheeks and nose, and the batwing or butterfly appearance so characteristic of lupus erythematosus. The nails in this case also showed involvement in the form of corrugations, fissuring and extreme brittleness.

The *scaly* form appears on the ears, face and scalp. The butterfly configuration mentioned above is quite frequently seen, spreading over the bridge of the nose and extending along both cheeks. The lesions are symmetrical, perhaps ten or twelve patches may be observed all along the face in any given case.

The *genesis* of the disease is interesting, if one discovers a case in its incipency. The first advent of the disease may appear in the form of papules; they soon become squamous and spread peripherally, forming concentric lesions that terminate in atrophic scars. The latter are not very marked; they are rather superficial and *au niveau* with the skin. As the edges advance the follicular orifices enlarge, become distended and the scales dip or sink into it and are removable with some difficulty. The scales are closely attached to the skin and generally whitish in color, although at times they may assume a grayish-tan hue. The dermatosis spreads very slowly and after existing for months the lesions gradually disappear by slow involution.

DIAGNOSIS

If the cardinal points be kept in mind there can be little doubt as to the diagnosis. They can be summed up as follows:

(1) The characteristic location of lupus erythematosus, i.e., appearing on the nose and cheeks, ears and scalp and its butterfly or batwing form when it is localized to the former areas. (2) Its frequent symmetry. (3) The closely adherent whitish-gray scales and the dilated follicular orifices. (4) The "stippling" appearance which the margin of the lesion suggests. (5) The production of atrophic scars without preceding ulceration. (6) Its incidence in adolescence and the absence of tubercle bacilli in the lesions: All these

diagnostic factors sharply differentiate it from lupus vulgaris, which is *primarily* and *distinctly* of tuberculous origin.

It must be differentiated from *syphilis*, especially of the nodular type, which also produces scars without ulcerations; but in lues there are no dilated follicular orifices and its progress is more rapid; furthermore, the scales are not so closely attached and its localization and distribution are entirely different from that of lupus erythematosus. Moreover, a serological examination will aid in corroborating the diagnosis. *Psoriasis* could never be mistaken for lupus erythematosus if one bear in mind the classical picture of such a dermatosis—its mother-of-pearl scales, the bleeding points and the peculiar distribution. *Psoriasis* never terminates in atrophic scars. Of course, in all cases of doubt one should have recourse to biopsy. It is advisable to do a Von Pirquet or an intradermal tuberculin test, but this is not to be depended upon, since both lupus erythematosus and lupus vulgaris may elicit positive reactions.

PROGNOSIS

In the acute disseminated form the prognosis is, as a rule, unfavorable, as the cases are prone to terminate fatally. However, in the chronic discoid variety, the prognosis is more favorable, the lesions involuting spontaneously; however, with the formation of atrophic scars. The latter is not always the necessary culmination of a case; there are instances where the disease terminates at the erythematous stage—a so called *abortive* attempt without the formation of scales or subsequent depression and atrophy. At all times this dermatosis proves very refractory and nothing seems to influence its course or progress. In one of our cases involution took place rapidly by radio-therapy and the local application of Fowler's solution, together with gold and sodium chloride administered internally; while in two other cases the morbid process subsided and involution took place by the administration of Fowler's solution and endocrine (corpus luteum) together with radio-therapy and a scaling ointment composed of resorcin, salicylic acid, bismuth and ammoniated mercury.

TREATMENT

The treatment of this dermatosis is so variable and manifold that no one remedy can be relied upon exclusively. A legion

of medicaments, both local and systemic, have been suggested and tried. The treatment may be divided into *systemic*, *local* and *physio-therapeutic*. Of the former, quinine, as advocated by Hollander, parathyroid and calcium lactate, phosphorus, the endocrines singly, or in combination, have been advised; salicin, and the salicylates have been recommended by Crocker. Ichthyol, ergot, ammon.-carbonate, potass. iodide, and above all, arsenic, have received attention at the hands of dermatologists. Arsenic perhaps, having a selective action on the skin, is the most useful and has held out some promise in our hands, in conjunction with the endocrines, especially corpus luteum (in female cases). Neoarsphenamin has been used with variable success. All these remedies, however, are empirical, for they are not based upon a rational etiology. If we accept the toxic hypothesis of this disease, all these agents must fall into disrepute. There is, however, one remedy that promises, in the future, to displace all known therapeutic agents, viz. gold. This is administered by intravenous injection in the form of gold and sodium thiosulphate in varying doses of 10 mg. to a maximum of 50 or even 100 mg. twice weekly, gradually increasing. The first clinician to use gold was Reute. In 1921 Kohrs reported the complete disappearance of the disease following the intravenous injection of Krysolgan. Of course, in all cases of gold treatment, the urine should be previously examined: albuminuria and all nephritides are contra-indications for its use.

The *local* treatment must be carefully instituted. It must be remembered that in the erythematous form the lesions must be soothed, therefore, the application of irritating remedies must be refrained from. Such soothing remedies as calamine lotion, a 2% solution of aluminum acetate, magnes. carbon. and simple dusting powders are of value. Compression by flexible collodion is good practice, and we have seen favorable results in the discoid form when all remedies of a stimulating character have failed.

Fowler's solution, 1 in 9 parts of water, applied locally has been tried and found useful. In one of our cases the result was very startling. It may at first cause a temporary erythema, which readily subsides. Stronger caustics may also be employed, such as glacial acetic, carbolic and pyrogallic acids, but great care must be used in their employment. Nitric and hydrochloric acids should be used with

great caution and only after the milder caustics fail. Carbolic and lactic 1-4 has been recommended by Small in very stubborn lesions. Scaling pastes in the form of resorcin and salicylic acid or bismuth subnitr. and ammoniated mercury may be applied in milder cases. A favorite formula is as follows:

Rp.		
Acid salicylic	1.5
Ung. Hydrarg. ammon	16.0
Bismuth subnitr.	4.0
Petrol alb. q. s.	30.0
M. et ft Ung. Sig.	Apply.	

Medicinal soaps form adjuncts to treatment; the salicylic and resorcin soap may be recommended in mild cases. Of all the caustics employed, CO₂ snow occupies the foremost rank and the results obtained are very gratifying. It is self-evident that its use is contraindicated in acute cases, but when the lesions are refractory and obstinate, especially of the limited or discoid type, it proves a valuable therapeutic procedure.

Radio-therapy has not always been successful; some patients are markedly benefited by light therapy, such as direct exposure to the sun, or artificial actinotherapy; while again in other cases the disease may be aggravated by it. The efficacy of Roentgen therapy is disputed by competent dermatologists. More extended clinical observation and experiments are necessary in order to determine, in the future, the value of these agents in the treatment of lupus erythematosus.

A word about the *tuberculin* treatment. Cannon and Ornstein discuss the relationship between lupus erythematosus and lupus vulgaris as well as the tuberculin therapy. Various dilutions of Koch's old tuberculin were used. Subcutaneous injections were given twice a week. Fifteen cases in all were treated by tuberculin; three made an almost complete recovery, seven showed marked improvement while five were unimproved. The improvement, the authors remark, was very gradual.

CONCLUSIONS

Much work has been done in the past to clear up our conception of lupus erythematosus. Unless we can determine the etiologic factor or factors in the causation of this disease, our attempts at eradication will be far from satisfactory. Of the various remedies recommended, the *gold compounds*, used intravenously, hold out the greatest promise. This, however, must be substantiated by further clinical observations. The value of tuberculin has not been fully established. Local medication

is of questionable utility, and the remedies advanced are legion. Radio-therapy has not proven effective; on the contrary, it has at times intensified the morbid process. Suffice it to say that, for the present, we are at a loss as to a successful and specific form of therapy.

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ACUTE PANCREATITIS FOLLOWED BY PSEUDO-CYST*

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Pancreatic disease is undoubtedly more common than supposed. The difficulty of diagnosing pancreatic conditions, both acute and chronic, and the absence of any reliable mechanical or laboratory tests, contribute to the doctor's dilemma. Moreover, the frequent association of pancreatic disease with other lesions of the upper abdomen, may obscure the pancreatic features unless we constantly bear in mind the possibility of this complication. However, a knowledge of pancreatic pathology and a carefully taken history in conjunction with a good physical examination, will lead us to a probable or certain diagnosis of pancreatic disease in most instances. In the more acute conditions this is important, because if treatment is to be of any avail, it must be prompt. The case which we present is of peculiar interest inasmuch as we can visualize the phase of biliary colic, the phase of acute pancreatitis, and finally the phase of pseudo-cyst.

Mr. F. M., a white male, age 36, was referred to us on June 8th by Dr. R. L. Phillips. His chief complaints were, epigastric pain, backache, and loss of weight. The family history contained nothing of importance. He had never been very ill, but for several years he had been overweight, weighing 230 pounds. In May, 1927, he had an

attack of "acute indigestion." This was characterized by the sudden onset of severe epigastric pain which radiated to the umbilicus and to the right scapula. The attack lasted about three hours and morphine was required to give relief. No jaundice, chills, or fever, followed the attack. He states that during the past year he has been distressed by flatulence, and that fatty foods seemed to disagree. This phase of the history presents a clearly cut picture of cholelithiasis.

On May 5th, 1928, he was suddenly seized with an attack of excruciating epigastric pain. This was of a colicky type, and radiated to the back and to the lower abdomen. He was admitted to Hurley hospital and several hypodermics of morphine were necessary to alleviate his distress. He stated that for three or four days deep breathing was very painful. He vomited incessantly for two days, in spite of gastric lavage and sedatives. The vomitus contained much mucus and was bile-stained. He was much distressed by the eructation of gas between attacks of vomiting and also had a great deal of hiccough. Tenderness could be elicited on deep pressure over the right hypochondrium and epigastrium. There was no marked muscular rigidity, merely a suspicion of resistance. No jaundice was observed, but he had a pronounced pallor with a suspicion of cyanosis. His temperature ranged from 99 to 101 for four days and rather pronounced sweats occurred at irregular intervals. In spite of this fever, his pulse was relatively slow, 80 to 100. His blood count showed 18,500 leucocytes with 81 per cent polymorphs. The stools were slightly pale, but were not greasy. While he was very weak, yet at no time was he in definite collapse. He was very restless and could not sleep. The pain in the epigastrium continued for about a week, but it was not of the colicky character which characterized the onset. An X-ray study of the gastro-intestinal tract was made on May 8th, the roentgenologist reporting "practically a normal G. I. tract" and a "positive Graham."

It is perfectly clear that during this episode, our patient had something more than a biliary colic. The attack lasted too long, and had associated symptoms suggestive of acute cholecystitis. The absence of collapse and of signs of epigastric peritonitis made a fulminating pancreatitis seem improbable to the attending physicians. The patient did not consent to operation and left the hospital on May 9th. His appetite did not return, he had constant epigastric distress and lost 30 pounds in the next month. At the time of our consultation, on June 8th, he stated that he had never really been free from epigastric pain and soreness since the attack in May. At times, he was distressed by sharp paroxysmal pains which would radiate over the entire abdomen, as well as to the back. These pains were associated with a little nausea, and could easily be interpreted as due to coeliac plexus irritation. He stated that a mid-dorsal backache was increasing in severity every day and that now it prevented him from sleeping. While he had desire for food, he found that a few

* Clinic at Hurley Hospital Post Graduate Conference, Oct. 25, 1928.

mouthfuls seemed to fill his stomach. He said that he was "short of breath" and that he felt very weak.

Only the relevant features of the physical examination will be reported. He was well developed, but flabby; his color was pale and the sclerae clear. On inspection one was struck by pronounced fullness in the epigastrium. On palpation, one could feel a round, smooth, tense swelling. Its lower border was midway between the umbilicus and the ensiform cartilage. While mainly central, it seemed to project up and under the left hypochondrium. It was immovable on palpation and moved slightly, if at all, on deep inspiration. There was a well-marked transmitted aortic pulsation. On percussion, this area was dull. The liver boundaries were within normal limits and no ascites could be demonstrated. The stools were pale and showed excessive fat (steatorrhea) and many undigested meat fibres (azotorrhea). The urine was not abnormal. The blood examination showed a slight leucocytosis. A further X-ray study was completed on June 12th by Dr. C. D. Chapell. He reported that "there was a constant filling defect of the mesial portion of the stomach." "In the lateral oblique position, a mass seemed to push the stomach forwards and also cause some obstruction of the duodenum, as evidenced by a six-hour residue."

These findings seemed to justify the diagnosis of a pancreatic cyst and an operation was advised. On June 14th, Dr. J. G. R. Manwaring opened the abdomen by an epigastric incision, extending obliquely across the right rectus. The gallbladder was opened and the walls found to be thick and whitened. There was a crop of large stones, one-half inch in diameter, and many smaller stones the size of peas. The stones were removed and a large tube sewed in. The gastro-colic omentum was then incised and a large pancreatic cyst presented. This was opened and about a quart of dark, mucoid, blood-stained, necrotic material evacuated. The pancreas was large and infiltrated, presenting several nodules resulting from an old fat necrosis.

The cyst cavity was packed with iodoform gauze and rubber glove drainage placed about the sac.

The post-operative course was a rather stormy one during the first week. His temperature ranged from 100 to 103; his pulse was rapid and small, remaining at about 120; he was restless and perspired a great

deal. He vomited incessantly, the vomitus consisting of mucous and brown coffee-like fluid. On one occasion he vomited a large amount of blood. Drainage was profuse and for a few days had a foul odor. On June 29th the pack was removed and the discharge soon became serous. This discharge must have contained ferments, because it irritated or digested the edges of the wound so much that bleeding occurred. In the second week he improved rapidly and was able to take food. He was able to sit up on July 5th and left the hospital on July 12th, with a small rubber drain in the fistula, but otherwise in good condition. Drainage soon ceased and by September 1st he was quite well and able to resume his work.

The first pancreatic cyst which we were privileged to see, was in N. Senn's clinic in 1903. It will be remembered that Senn had well established the clinical picture of pancreatic cysts as early as 1885, and really, very little has been added to the subject since his time. However, clinical observations and experimental studies have somewhat clarified the pathology of those cysts which result from pancreatitis, both acute and chronic.

CYSTS AND GALLBLADDER INFECTION

The relationship between cysts and infection of the gallbladder has been clearly demonstrated for many years. W. J. Mayo ascribes the frequency of pancreatic disease to "the unfortunate association of terminal facilities" of the biliary and pancreatic duct systems, and further ascribes over 80 per cent of pancreatic disease to gallstones. While Opie's original work seemed to point to the ducts as the only route by which infection was carried to the pancreas by retroinjection of bile, considerable doubt has arisen about this being the only route. Deaver's studies (1) pointed to the lymphatics as the route whereby infection was conducted from the gallbladder, bile ducts, and duodenum to the head of the pancreas. Rosenow, believing that streptococci may acquire specific affinity for certain tissues, offers proof of a hemic origin, the cholecystitis and pancreatitis co-existing because of a common origin.

The more recent experiments of Archibald (2) have shown that a reflux of bile can set up an acute pancreatitis. This reflux is not necessarily caused by a stone in the common duct occluding the duct of Wirsung. A reflex spasm of the sphincter of Oddi, initiated by an irritable peptic

ulcer, or by gallstones elsewhere than in the common duct, can produce the same effects. He has further shown that the bile need not be infected to initiate pancreatitis. Positive cultures are of little value because of secondary infection by the *B. Coli* and other bacteria at a later stage. G. Egger's (3) case corroborates Archibald's view. His patient died soon after the onset and he found a strip of necrotic tissue extending along the duct, the entire length of the pancreas, while the periphery of the pancreas was intact. The pancreatic juice per se is not an active ferment, and just what activates it is not entirely settled. It would therefore seem that much of pathogenesis of acute pancreatitis is still an open subject.

During an attack of acute pancreatitis, the activated enzymes of the gland produce a necrosis of several lobules, with or without much hemorrhage. The surrounding fatty tissues are saponified, presenting the characteristic picture of fat necrosis. The resulting debris distends the capsule of the pancreas, producing a pseudo-cyst, that is, a cyst whose walls are not lined by epithelium, and whose capsule may be derived from other tissues than glandular ones. Blood and pancreatic fluid may accumulate in the lesser peritoneal sac, the Foramen of Winslow being closed by inflammatory changes.

Severe trauma may result in a hematoma of the pancreas, in which case, autodigestion of the encapsulated blood will lead to cyst formation. We have seen one instance of a chronic ulcer of the posterior wall of the stomach infecting a portion of the pancreas with subsequent cyst formation.

PANCREATITIS PICTURE

A low grade chronic pancreatitis produces an entirely different pathological and clinical picture. Fibrosis causes stenosis of a small duct or ducts. These dilate, the epithelium proliferates and lines the cyst wall. These are properly classified as retention cysts. Obviously such cysts may be either single or multiple.

The symptoms of pancreatic cysts depend on the disease which leads to cystic formation. Hence, retention cysts, following a chronic indurative pancreatitis, will present a very different picture from those resulting from acute pancreatitis. Similarly parasitic cysts due to the *Echinococcus* and the proliferation cysts arising from neoplasms will give quite different histories. Some cysts may be quite devoid of symptoms and may be discovered only

by physical signs. In many instances there are evidences of lowered pancreatic function, such as loss of weight, fatty stools, and glycosuria. The special pancreatic function tests are of doubtful clinical value in the demonstration of slight functional variations.

The physical signs are not constant. Cysts vary in size and position, the latter depending upon the part of the pancreas which may be involved. The relation of the cyst to peritoneal reflections in a given case determines whether it shall point above the stomach, behind it or below it. If the tail of the pancreas is involved, it may simulate a cyst of the spleen. If the head is involved it may simulate a renal tumor. Never under any circumstances attempt an exploratory aspiration, for there is the danger of the tense cyst leaking and producing peritonitis or a widely disseminated fat necrosis. The X-rays can furnish valuable evidence, especially plates taken in the lateral oblique positions.

The process of differential diagnosis brings up many things for consideration, but we shall deal with the more important only. Aortic aneurysm will usually be associated with a history of syphilis. The pulsation is expansile while the pulsation in a cyst is merely transmitted. We have found it helpful to examine suspected aneurysms in the knee-chest position. A greatly distended gallbladder may simulate a pancreatic cyst. This will have a wide respiratory excursion, while a cyst has none. It is not covered by the stomach or colon, while the cyst always is. This fact can be determined by the X-ray or by inflation of the stomach and colon. Ovarian cysts originate in the pelvis and when they rise high in the abdomen, the vault of the vagina is almost always pulled upwards. Mesenteric cysts are smooth and tense, usually presenting near the umbilicus. They are freely movable in the axis of the mesenteric attachments unless fixed by inflammation or adhesions. They have a much longer duration before the onset of pressure symptoms. A slowly perforating peptic ulcer may initiate a retroperitoneal, subdiaphragmatic abscess which may resemble in symptoms and signs the pseudo cyst following acute pancreatitis. There is usually more fever and a higher leucocytosis. The diaphragm is pushed up and a characteristic bulging can be demonstrated by the X-ray. The breath sounds at the base of the lung are apt to be diminished.

The prognosis of pancreatic cysts depends upon the etiological factors. The

usual tendency is for the cysts to increase in size. The cyst may rupture into the peritoneal cavity and produce peritonitis and fat necrosis, or it may rupture into the intestine, the tumor disappearing. Pancreatic function may be lowered, and one of our cases developed diabetes two years after drainage. The results of operation are quite satisfactory, although an operative mortality rate of from 6 per cent to 10 per cent may be expected.

PREVENTION BETTER THAN CURE

Preventive treatment is better than cure, and inasmuch as 80 per cent of these cysts follow gallstones and gastric ulcer, these sources of infection should be removed. Acute pancreatitis should be treated by direct and free drainage just as soon as diagnosed, unless the patient is in profound shock. The acquired cysts should be treated by drainage and packing. Drainage of multilocular cysts is inadequate and nothing short of complete removal is of any value. At the time of operation, pathological conditions of the gallbladder should be treated in the usual way. For some time after a successful operation, the patient should be carefully examined to discover any loss of pancreatic function, in order that suitable diets may be prescribed.

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SURGICAL INDICATIONS IN THYROIDISM

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This is a pathological entity in which the thyroid, by either pressure symptoms or dysfunction, is causing symptoms traceable to the thyroid. We may dismiss the so-called hypothyroid type as not amenable to surgical intervention or the cretin type, which is very uncommon in this country, but very prevalent in the mountain districts of Europe and Asia in which transplantation of the thyroid has been attempted.

De Quervain states in a series of his cases in which he transplanted the thyroid of humans into long bones and in which he noted some improvement, but feels that a lapse of twenty years is necessary

to fully judge the results. In this country the results of transplantation have been uniformly ineffective.

Coming back to the type of thyroid enlargement that does not for a long time of its existence show any marked symptoms, the so-called colloid type, beginning with a slight enlargement at puberty or pregnancy and seemingly disappearing at times, to take on new zest and activity at twenty-five or thereabouts, the patient showing slight palpitation, moderate loss of weight, perhaps a slight tremor and mild cardiac symptoms. I think this type of thyroid should be considered as one that may become very toxic, for fully 30 per cent of these will so develop and 2 per cent may become malignant.

Illustration, hospital case No. 50301, entered hospital April 20, 1928, age 51. C. C. General nervousness, tremor, precordial pain, dyspnoea, dysphagia, swelling on right side of neck, loss of 30 pounds in three months.

Patient states that he had had a large neck for many years, but growth increased rapidly from the first of the year. Past history irrelevant except that prior to noticing the rapid enlargement of the neck he had what was diagnosed elsewhere as "typhoid pneumonia". Probably an intercurrent infection of the bronchio-gastrointestinal tracts.

Family history—Mother died of cancer of the uterus.

Physical examination—Fairly well developed, middle-aged man, not acutely ill. Eyes react to light, slight exophthalmus present, widened palpebral fissures, teeth and tonsils out. Marked enlargement of the right side of neck, some enlargement in middle, no apparent enlargement of the left side of neck. Chest negative, no palpable cardiac thrill, tremor present in both hands, no murmurs, heart rate 96, B.P. 150/110 B.M. plus 23, urinalysis essentially negative. Blood sugar 102 mgms. Blood urea 30 mgms.

Provisional Diagnosis—Adenoma of thyroid, infected cysts of thyroid.

Final diagnosis, including pathological diagnosis—Infected adenomatous, cysts and encapsulated adenocarcinoma. Patient well. B.M.-I. Gained about twenty pounds.

Yet another type which is often met with is the type of goitre that is very insidious in onset, with very extensive pathological changes due to a so-called secondary toxicity of a long existing adenoma as best illustrated by Hurley hospital Case No. 52039. Age 60.

C. C. Palpitation, precordial pain radiating to left shoulder and elbow. Palpitation very marked on slight exertion. Feels choking, especially at night. At times dysphagia. Extremely nervous and weak.

Physical examination—Woman weighing about 110 pounds, shows loss subcutaneous tissue. Scalp negative, eyes stary, definite exophthalmus present in left one, right eye not so dominant, teeth out, fine tremor present in tongue. Neck contains large massive tumor size of grapefruit on left side. Marked pulsation, chest essentially negative. Heart rate 110 regular and extra systolic murmur, some cardiac enlargement, general arterio sclerosis. B.P. 140/98. Abdomen flabby,

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essentially negative. Marked tremor in fingers.

Laboratory findings: B.M. plus 58, blood urea 42 mgms., urinalysis pus and epithelial cells R.B.C. 5,600,000, hemo 95 per cent, color 0.8, W.B.C. normal bounds.

Pre-operative diagnosis: Graves disease, cystic adenoma, secondary toxicity of thyroid.

Pathological diagnosis: Fetal adenoma with extra adenomatous parenchymatous hypertrophy, Graves disease.

Patient discharged with B.M. rate of plus 9.

The above two cases illustrate the necessity of careful watching of the so-called innocent thyroid enlargement.

The frank case of exophthalmic goitre is unquestionably easy of diagnosis and is usually operated after proper pre-operative care, which has become just as important as any phase of the operative cure.

More and more our patients present themselves for enlargement of the thyroid which usually appears innocent in the early stages, but if an iodine course fails to diminish the size as well as the slight toxic symptoms, I believe one is justified advising surgical interference, especially above twenty-five year limit.

A type of case lately referred for surgical treatment are patients with slight cardiac changes or presenting organic lesion with a co-existing apparently inoffensive lighting up of the thyroid will greatly aggravate the cardiac pathology and many eminent clinicians are advocating the so-called prophylactic thyroidectomy.

A diagnosis of fetal adenoma is an indication for removal, for very often extra adenomatous changes immediately surrounding the adenoma induce changes in the gland which may only be cured by removal.

Indication for ligation of the superior thyroid arteries have been greatly diminished, due to widespread use of preparatory iodine treatment, and is almost becoming a rarity. The multiple stage operation as advocated and practised by Willard Bartlett, is also becoming a less necessity, due to more thorough pre-operative treatment, as digitalization, practiced by Crile and others, Lugols, etc. Goitre patients with grave cardio-vascular and severe nephritic changes should best be left alone as the death rate is very high amongst them.

The adolescent type of goitre, even with toxic symptoms, should be first treated by a medical regime, and if not abated, should be considered as a possible surgical indication.

Goitres in the young must be watched carefully as the operative risk is greater with them in thyroidectomy. Prolonged

X-ray and radium treatment in goitres, though reducing the metabolic rate and size, yet do not seem to have as favorable influence on the heart, and cases so treated are extremely hard to operate.

The improvement noticed after a careful pre-operative regime in which Lugols solution, rest and sedatives were employed, often give the patient a faulty conception and the surgeon must warn of its transitory character. Old age is not a contra-indication, but a careful blood analysis and urinalysis are of prime importance. Diabetes, when present, need not be feared for we now possess Insulin, which should be used as indicated. Last and not least, the patient must have no fear and usually a patient lying in bed without any pronounced anxiety and able to relax, is a good risk. Surgery should rarely be undertaken on maniacal patients or on patients with ascending B. M. rate. Basal metabolism is extremely valuable, but should not be considered as an absolute criterion. It is only one of the many signs and not the one, "the clinical interpretation of the symptoms plus the laboratory findings are the only criterion to judge by."

INDEXING AND FILING HOSPITAL CASE RECORDS—A DESCRIPTION OF THE METHOD EMPLOYED AT HARPER HOSPITAL, DETROIT, MICHIGAN

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Indexing and filing hospital case records so they will be available for research, analysis, or any form of study, is not easy. This task is frequently delegated to clerical employees who have scant technical knowledge of medicine, and who receive very little co-operation from attending or staff physicians. This situation makes it highly desirable that a system of indexing should be as simple as is consistent with adequacy. If clerical employees are compelled to maintain a state of war with medical men the non-combatant records will bear the brunt. On the other hand, if filing clerks must file as best they can without bothering physicians for corrections or assistance, some astounding mistakes will be made.

Elaborate systems for case indexing

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have been devised, some of which require expensive equipment and great expenditure of time. Other systems are simple enough, but give only inadequate information. Not being satisfied with any system inspected, we have worked out a method which seems to give all essential information with a minimum of time and effort. A description of this method will perhaps allow readers to decide whether it is suitable for their use. Anyone wanting further information about this method may communicate with the Record Librarian, Harper Hospital, Detroit, Michigan.

On the first sheet of each case record is a generous space in which the attending physician or interne may write his diagnosis, etc., for index information (see Fig. 1). In most cases there is an obvious "primary diagnosis" which is recorded, although the condition may be obvious, the nomenclature employed is likely to be as varied as ingenuity can devise. For this reason a standard nomenclature must be strictly followed; and we have found the Massachusetts General Hospital Classification of Diseases quite satisfactory. (Any such adequate classification might be used). Copies of this booklet are provided for internes' use. If the diagnosis supplied does not conform to this classification the chart is sent back for the interne's correction. When a patient has two or more diseases of apparently equal importance any one of them may be given as the "primary diagnosis" provided the others are listed under "Complications or secondary diagnosis." (See Fig. 1).

In detailing complications, as in giving the primary diagnosis, it is imperative that a standard nomenclature be followed; otherwise attempts to index complications will only result in chaos. Practically all complications may be found in the Massachusetts General Hospital Classification of Diseases. Whenever the standard nomenclature is found incomplete additions may be allowed, but only when approved by a competent authority such as a department head or some physician familiar with the problems of the record department. By listing death as a complication we are provided with a file of all deaths.

In listing operations performed, again a standard nomenclature is imperative. "Thoracoplasty" and "Extra-pleural Pneumolysis" may refer to the same operative procedure, but a record clerk cannot be expected to recognize that fact. Nor can she be expected to recognize other operative procedures under the names which

ambitious surgeons and confused internes often give them. Being unable to obtain a standard operative nomenclature, we have compiled one of our own. The heads of various departments of the staff were re-

HARPER HOSPITAL		CASE NO. 168000
		LOCATION Div. 20
ADMITTED Jan. 3, 1929	DISCHARGED Died Jan. 8, 1929	
FULL NAME Doe, John	AGE 42	
SEX M	RACE White	SYND
BIRTHPLACE Detroit, Michigan	NAME OF FATHER OR NEAREST RELATIVE Wife, Mary Doe	
ADDRESS 4442 Packard Ave.	OCCUPATION Machinist	
WHERE EMPLOYED Blank Motor Co.	RELIGION Protestant	
PHYSICIAN Dr. Richard Roe	TIME ADMITTED 2:00 A.M. BY C.H.N.	
TRANSFERRED FROM	TO	TRANSFER DATE
FORMER ADMISSIONS None	FORMER DIAGNOSES	
<p align="center">INDEX INFORMATION TO BE FILLED OUT BY INTERNE OR RESIDENT AND APPROVED BY ATTENDING PHYSICIAN</p> <p>PRIMARY DIAGNOSIS Appendicitis, acute with perforation</p> <p>COMPLICATIONS OR Paritonitis, acute general</p> <p>SECONDARY DIAGNOSES Paralytic ileus</p> <p>Death</p> <p>OPERATIONS Appendectomy</p> <p>Enterostomy</p> <p>SIGNATURE OF INTERNE</p> <p>SIGNATURE OF PHYSICIAN</p>		

Figure 1

quested to submit names of the operations performed in their departments, and this has been added to as circumstances have required. Any such list should permit of gradual expansion.

When several operations are performed they are all listed under "Operations." (See example in Fig. 1). Blood trans-

DIAGNOSIS Appendicitis, acute with perforation	ADMITTED 1-3-29 NO. 168000
COMPLICATIONS OR SECONDARY DIAGNOSIS	FORMER ADMISSIONS (DATE OF)
Peritonitis, acute general	
Paralytic ileus	
Death	
OPERATIONS	
Appendectomy	
Enterostomy	
	PT Doe, John
	AGE 42 F
	RACE OR NATIVITY White
PHYSICIAN	
Dr. Richard Roe	

Figure 2

fusions, even though done on the ward by the medical resident, may be listed as operations, thus providing a file of all transfusions performed. Spinal anaesthesia, autopsies, or other procedures may be in-

dexed in the same way, which readily compiles useful information. Such obstetrical procedures as breech extraction, forceps delivery, etc., may also be indexed as operations.

When the information on a case record has been found correct and complete, or has been corrected, the case is ready for indexing. For this purpose we have printed paper slips 4 inches by 6 inches in size. These are in four different colors, but are otherwise identical. (See Fig. II). Each of these has space for typing the following information.

1. Primary Diagnosis.
2. Complications or Secondary Diagnoses.
3. Operations.
4. Physician.
5. Date of Admission.
6. Case Number.
7. Previous Admissions.
8. Patient's Name.
9. Sex.
10. Age.
11. Race or Nativity.

Four files are kept: (1) Primary Diagnosis, (2) Complications, (3) Operations, (4) Physicians. Every patient has a white slip for the Primary Diagnosis file. As many carbon copies of this are made as are required for the individual case. A patient having no complications, secondary diagnoses, or operations, will have two slips, a white one for the "Primary Diagnosis" file, and a carbon copy (on a blue slip) for the "Physicians" file. In such a case the white slip will be filed in the "Primary Diagnosis" file under the guide appropriate to that particular diagnosis. The blue slip (a carbon copy of the first one) is filed in the "Physicians" file under a guide bearing the physician's name. When there are any complications one carbon copy is made (on a yellow slip) for each complication. These yellow slips are then filed in the "Complication" file, one under each of the complications diagnosed. Thus a patient having post-operative pneumonia and post-operative hemorrhage has a yellow slip filed under each of these headings (in the "Complications" file).

A patient having two or more operations performed will have a gray slip (carbon copy of the original) made for each operation performed. These gray slips are filed in the "Operations" file, one under each of the operations performed.

For a concrete example John Doe is diagnosed as "acute appendicitis with

perforation." He develops two complications, acute general peritonitis, and paralytic ileus, and dies. He is attended by Dr. Richard Roe, who performs two operations, appendectomy and enterostomy. This patient will require:

(a) One white slip which will be filed in the "Primary Diagnosis" file under "Acute Appendicitis with Perforation."

(b) Three yellow slips which will be filed in the "Complications" file, one under "Acute General Peritonitis", one under "Paralytic Ileus", and one under "Death."

(c) Two gray slips for the "Operations" file, one under "Appendectomy", and the other under "Enterostomy."

(d) One blue slip for the "Physicians" file, under "Dr. Richard Roe."

It will at once be seen that any one looking under any of the headings "Acute Appendicitis with Perforation" ("Primary Diagnosis" file), "Acute General Peritonitis", "Paralytic Ileus" or "Death" ("Complications" file), "Appendectomy", "Enterostomy" ("Operations" file), or "Dr. Richard Roe" (Physicians" file), will find a record of the above case. If the complete case record is then desired it will be found filed by case number and is readily available. Case numbers are assigned according to order of admission and run serially without interruption.

The significance of this type of indexing and filing should be apparent. For instance, any one interested in acute appendicitis with perforation can select all cases of that diagnosis; any one interested in acute general peritonitis occurring as a complication of other conditions can find all such cases; any one interested in all cases in which appendectomy (or any other operation) is performed can readily find them. This method is capable of other uses; age or sex incidence in a given disease can be readily studied, or a study can be made of fatalities, surgical or medical, in general or in disease groups. It would be tedious to detail the numerous types of study which can be made from such files; it will suffice to say that the possibilities are limited only by the industry of the student.

In a hospital having over 20,000 admissions annually these files are kept by a staff of three women who do also the routine work of the record department. The material being filed is inspected and checked daily by a physician. This will give some idea of the time required for this type of records. The expense of equipment required is negligible.

ICTERUS INDEX STUDIES IN LOBAR PNEUMONIA

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The bile-solubility of the pneumococcus, differentiating it from the streptococcus, used in the typing of lobar pneumonias, is a matter of common knowledge in everyday laboratory routine. From this fact an a priori hypothesis has been formed applicable to pneumococcic lobar pneumonia. Briefly stated it is as follows:

1. Lysis of pneumococci by blood bile in clinical lobar pneumonia may be part of the mechanism aiding recovery.

2. Changes in the icterus index during the acute course of lobar pneumonia may be of prognostic value.

3. This observation probably applies only when the pneumococcus is the sole offending organism.

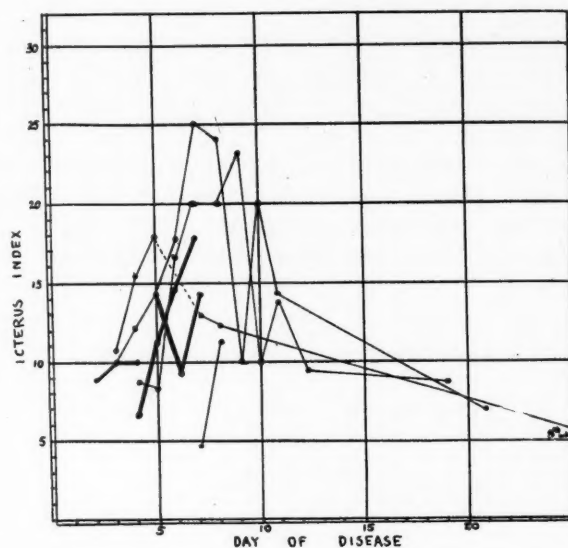
So far this is purely theoretical and not based on adequate experimental data. The purpose of this paper is not to establish the proof of these suppositions, but merely to present results so far obtained as a preliminary investigation in the study of icterus index changes in the acute course of lobar pneumonia.

Daily icterus index determinations were made on all cases which from clinical and laboratory findings were typical primary pneumococcic lobar pneumonia admitted to the Highland Park General Hospital from August 1 to October 15, 1928. One, admitted with the diagnosis of lobar pneumonia, and having a normal icterus index, was later proved to be meningococcic meningitis. One case of empyema following lobar pneumonia, and requiring rib-resection, was found to have no change from normal when seen at the hospital.

ICTERUS INDEX TABLE																							
C = DAY OF CRISIS												D = DAY OF DEATH											
DAY OF DISEASE																							
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	
RECOVERY	1			10	12.3	14.3	17.7	23	C	24	10	29	48.5									7.4	
	2				7.7	7.2	6.4	20	C	23	10	13.7	9.7						8.9				
	3			10.8	15.4	7.8	C	12.9	11.9													5.7	
	4							C	4.8	11.1													
DEATH	1	8.8	10	D																			
	2					10.3	9.1	D	11.5														
	3					6.9	11.7	14.5	D	7.8													

The accompanying table and curves are self-explanatory. Icteric indices of above

15 were frequently accompanied by no definite manifestation of bile pigment deposit in the skin or conjunctivae.



Composite Curves

SUMMARY

In seven consecutive hospitalized cases of lobar pneumonia a disturbance of the blood bile content as shown by the icterus index occurred. Out of four cases that resulted in recovery an early rapid rise or a delayed but rapid and persistent rise was observed in three. Out of those that recovered an index of above 20 was sustained at the crisis in two, and a marked secondary rise occurred on the second day after the crisis. In another recovered case no determination was done on the day of the crisis, but a prompt increase in blood-bile occurred previous to it. Three recovered cases showed a maximum at the time of the crisis, followed by a marked drop on the succeeding day. One recovered case was not studied early enough to be of value. Two recovered cases showed an elevation above normal persisting for several days after the crisis. The fatal cases inconclusively indicated either a failure of the blood-bile concentration mechanism or an inadequate rate of rise early enough in the course of the disease.

CONCLUSIONS

1. A disturbance of the icterus index occurs in some cases of lobar pneumonia.
2. The curves so far obtained suggest a definite relationship between the icteric index and the acute course of lobar pneumonia.

3. Further conclusions are deferred until the study of more icteric index

curves is completed. It is obvious that these cases are insufficient in number for satisfactory interpretation of the results obtained.

4. A check on these findings by quantitative bilirubin determinations will be made in the next series of cases.

5. The theoretical aspect of this investigation will be discussed in a subsequent paper.

CHRONIC KIDNEY INFECTIONS*

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Many cases of definite pyelonephritis and cystitis may be excluded from the group of chronic kidney infections. The pyelitis of childhood, the transient infection in the adult, the infection secondary to renal or ureteral stone, to stricture of the urethra, to prostatic hypertrophy and the infection which is frequently encountered in hydronephrosis, all fall outside of the group which forms the basis of consideration for this paper. It is desired rather to consider that large group of cases in which there is definite evidence of the disease having lasted 5 to 10 years or more in which the etiology is more or less obscure. These cases are characterized symptomatically by bladder symptoms of a more or less chronic or at least intermittent type. The symptoms consist of frequency, some nocturia, together with more or less burning on urination. It is common to obtain the history of an occasional chill followed by fever which may confine the patient to bed for several days and which is frequently diagnosed influenza or the grippe. There is often the complaint of backache, one or both sides, which may vary in severity to renal colic similar to that produced by renal stone. Very infrequently associated with the pain or the chill and fever there may be a gastro-intestinal upset with nausea and vomiting. The patients will occasionally complain of "dirty urine" and occasionally of gross hematuria.

The findings in this group of cases are usually insignificant except for the laboratory, X-ray and cystoscopic findings. Urinalysis in the vast majority of cases will show nothing but microscopic variations from normal. The specific gravity varies with the fluid intake. It is unusual to find more than a trace of albumen and this

finding seems more likely to occur in the presence of microscopic blood. The finding of sugar must be regarded as quite coincidental. There will be a rather uniform finding of pyuria, although this may vary from day to day or even from specimen to specimen between rather wide limits. Blood in microscopic quantities is rather frequent in the presence of a pyuria. Much valuable information can be obtained from careful staining of the urinary sediment and with fair accuracy it can be determined whether the predominating organism is a coccus or bacillus, or whether there are no organisms present.

The cystoscopic findings vary at wide limits. The bladder may show only a very mild diffuse cystitis which is usually more marked about the trigone and ureteral orifices. The bladder mucosa in these cases will appear rather anemic, slightly thickened and dull and lusterless. The ureteral meatus frequently appears quite normal. Often, however, there is slight edema and reddening about either orifice. All degrees of variation in the severity of the bladder process may be seen. The cystitis may be very severe and diffuse with ulcerations of the mucosa and edema of such a marked degree as to make identification of the ureter orifices impossible. The ureter orifices may show dilatation and in fact the entire bladder picture may strongly simulate that of tuberculosis. Catheterization of the ureters and analysis of the split urine specimens will indicate to a certain degree its relative grade in either kidney and will further indicate whether or not the process is bilateral. There is a small group of cases, even in the presence of a low grade pyuria, which may, not on the particular occasion of ureteral catheterization, show pus in the ureteral specimen. The cystoscopic picture and the history, however, will usually give sufficient data to justify the diagnosis of bilateral pyelitis and cystitis. In the case of chronic unilateral kidney infections it is especially important to rule out tuberculosis.

X-ray offers very little in the cases of chronic kidney infections. About 10 per cent of the cases will be complicated by the presence of stone. The stone will without exception be proven by pyelography to be within the calyx, pelvis or ureter, and in this regard it very importantly differentiates the type of diffuse calcification which is occasionally seen in very chronic renal tuberculosis or in carcinoma of the

* Presented at the Second Annual Clinic of the Highland Park Physicians Club, December 1, 1927.

renal cortex. The indication for surgical removal of the stones is very much less clear than when the stone may be diagnosed as the primary condition. If the stones are silent their removal will not result in any material benefit in the pyelonephritis and will, therefore, not relieve the patient's symptoms. In the cases, however, where there is an occasional renal colic, perhaps with a chill, fever and exacerbation of the bladder symptoms, surgical removal of the stone would seem justifiable.

Urography offers very important data in this group of cases. There are a fair proportion in which the disease has not advanced sufficiently to give any dilatation of the ureter, pelvis or calyx, in which the pyelo-ureterogram may be quite normal. The most common and perhaps the most typical pyelographic abnormality is dilatation of the ureter. Frequently this is very marked so that the ureter may appear dilated to several times its normal size. It folds upon itself and presents in this way areas of apparent constriction. It frequently appears too long for the distance between the bladder and the kidney pelvis. The dilatation frequently affects the ureteral pelvis juncture so that the ureter joins the pelvis by a rather wide mouth, making it difficult to say where the pelvis begins and the ureter ends. It is common to see dilatation of the kidney pelvis of a rather irregular nature which rather more suggests a relaxation of the pelvis wall than a dilatation from increased intra-pelvic pressure. The calyces maintain their size and shape remarkably well even in the presence of rather advanced infection. In this respect the pyelographic picture particularly differs from that of renal tuberculosis. Tuberculosis is always primarily medullary and evidences itself by small irregular abscess cavities adjacent to one or more of the minor calyces. There is usually very little change in the appearance of the pelvis in tuberculosis and when there are pyelographic changes in the ureter they are evidenced by a very much smaller degree of dilatation and by definite areas of narrowing and stricture. It is unusual to find stricture in non-tuberculous infections of the kidney. Much confusion, has seemingly arisen from the pyelographic findings above described. It seems unreasonable to assume that apparent constrictions, due to dilatation of the ureter with folding upon itself or to spasm, which on subsequent pyelography can be seen to

have entirely disappeared or have changed position, could be due to an organic narrowing or could be favorably influenced by dilatation. Filling defects in the pelvis may occasionally be encountered due entirely to the presence of blood clots in cases of pyelonephritis with bleeding. These pyelograms so closely simulate those obtained in carcinoma of the renal pelvis as to need careful differentiation. The history, urinalysis and cystoscopic findings will usually introduce enough doubt that a carcinoma is present. Subsequent pyelograms will show a persisting filling defect if due to carcinoma.

The renal function in the cases of chronic kidney infections remains remarkably good. By the usual tests none but the most advanced cases will show evidence of deficient renal function. It is quite usual for the phthalein test to be normal. In the group of cases where marked dilatation of the pelvis and ureters exists the appearance time of the phthalein may be increased and there may be a deficiency in the percentage of dye returned. This group of cases may be further checked by the tests of retention (blood urea, non-protein nitrogen and creatinine content of the blood) and found to have normal function. This apparent discrepancy between the tests of excretion and of retention may be explained by the fact that dilatation of the ureters and pelvis increases the size of the urinary reservoir sufficiently to delay the appearance time and to reduce the percentage return per unit of time. Late in the course of chronic pyelonephritis the function tests may indicate marked reduction in renal function. There is usually abundant corroborative evidence of this failing function in the clinical appearance of the patient. It is rare to observe elevation of blood pressure—diminution of urinary output and retinal changes which are commonly seen in nephritis.

Excluding the cases of lower urinary obstruction, renal and ureteral stone, paralysis of the bladder and anomalies, the etiology of chronic pyelonephritis is obscure. Bugbee and others have discussed lesions of the colon as possibly responsible. Meisser and Bumpus, working along the line of Rosenow's work on focal infection, have produced experimental evidence in support of the view that focal infection plays an etiologic role. The long recognized foci in teeth and tonsils, and the more recently

recognized foci in the gallbladder, appendix, prostate and cervix, together with the systemic infections accompanying the common head cold, influenza, pneumonia and typhoid, must all be considered possible precursors of chronic pyelonephritis.

Treatment offers a wide range of alternate or combined procedures, with a fair expectation of improvement and a limited hope of cure. Elimination of focal infection will appear to pay large dividends in a moderate number of cases. Because it is impossible to ascertain which cases will be benefitted by any given procedure, the indication for a combined system of treatment is strongly presented. The tonsils should be carefully and, when possible, expertly examined. The small buried type of tonsil without a history of tonsillitis is liable to be a pitfall. Teeth should be X-rayed and in cases where all teeth have been extracted it is wise to rule out the presence of infected roots which may remain after extraction of the teeth. Rather sound experimental evidence has been advanced to support the view that all devitalized teeth are infected and that peri-apical abscess formation evidenced by X-ray is a defense against infection. By this token the devitalized tooth without evidence of periapical abscess formation is probably the more dangerous type to have. Chronic cervicitis or prostatitis should be treated by appropriate methods. Removal of the appendix or gallbladder as a direct attack on focal infection demands much more careful consideration, and doubtless, with regards chronic pyelonephritis, would rarely be convincingly indicated. Pierce and Corbett, however, have reported cases where improvement in pyelonephritis was thought to have occurred following cholecystectomy performed for the relief of gastro-intestinal symptoms.

Stock vaccines of the colon-typhoid group and autogenous vaccines from urine cultures are still employed, though less commonly than ten or fifteen years ago, in the treatment of chronic pyelonephritis. The most brilliant results with vaccines occur in the acute or subacute cases where the result without any treatment is frequently very good. In a careful review of 2,040 cases of chronic pyelonephritis it was noted in a small proportion that definite benefit seemed to follow the administration of vaccines. In this connection is it interesting to note the improvement which sometimes follows a long continued fever of an intercurrent disease or indeed

the chills and fever intercurrent in chronic pyelonephritis itself.

Intravenous treatment with various drugs has given rather indifferent results. Arsphenamine intravenously has been followed by a definite reduction in the amount of pus in the urine, but the improvement is usually very temporary. Similar results seem to follow the intravenous use of mercurochrome—220 soluble, acriflavine and methenamine. There seems to be no method of proof that the brilliant results following the use of intravenous mercurochrome in acute or subacute pyelonephritis would not have been forthcoming without the mercurochrome. The very severe chills, high fever, prostration, and the occasionally reported fatality following its use are dangers which do not justify its use in chronic pyelonephritis.

Surgery is not often indicated. Secondary stone formation, persistent unilateral bleeding, marked unilateral destruction with only slight involvement of the other kidney, the very rare case of stricture of the ureter constitute the principal indications for nephrectomy. Nephrectomy pelvio or uretero-lithotomy are sometimes indicated. Plastic operations on the pelvis or ureter are of very questionable value in chronic pyelonephritis.

The use of antiseptics by mouth have fallen of late into an unwarranted disrepute. If the drug be chosen with particular reference to the predominating type of infection, much improvement frequently results. By study of the stained urine smear the cases can be easily separated into the following groups: (1) pus without bacteria; (2) pus with bacilli predominating; (3) pus with cocci predominating. Although the following system has been found useful in a rather general application, variations to fit the individual case must be employed. In the group of cases with pus, but no bacteria, sandalwood oil in capsules is given three times daily after meals. The patient will usually tolerate 15-30 minims daily, slight backache or loss of appetite may occasionally be noted, in which case the dose should be reduced or another antiseptic employed. The absence of bacteria suggest the possibility of stone or tuberculosis which in the majority of cases must be treated surgically. For the bladder irritability of tuberculosis, sandalwood oil over long periods of time is still the best palliative method. Urotropin (gr. $7\frac{1}{2}$) and sodium acid phosphate (gr. X) is used in the group with bacilli predomi-

nating. It is best given every six hours except as this schedule jeopardizes the long night rest period. Three times daily after meals and at bed time makes a satisfactory substitute for the six hour schedule. In the remaining group with cocci predominating sandalwood oil will give relief of bladder symptoms. Hexylresorcinol in large doses and over a long period of time has been found very effective in the control of bladder symptoms. It does not seem to have a sterilizing effect on the urinary tract. It is prepared in capsules each containing 0.15 grams of the drug. It not infrequently causes the irritation of the stomach and for this reason its use is started with one capsule three times a day after meals, increasing to four capsules on the fourth day, if tolerated. The beneficial effect of any of the urinary antiseptics given by mouth may very probably be due to the fact that a large fluid intake is always prescribed with the antiseptic. A daily intake of 3500 c.c. in 24 hours is considered a satisfactory range.

Periodic lavage of the kidney pelvis has long been accepted as a standard treatment in chronic pyelonephritis. Speculation has arisen as to the mechanism of the improvement noted from this type of treatment. The fact that equally good results are observed regardless of the type of irrigant used seems to indicate that the mechanical washing and drainage of the pelvis is the important factor. It has been suggested that the dilatation of the ureter afforded by the passage of the ureteral catheter is the important factor. This view has led to the rather wide use of dilatation of the ureter. Unless, however, actual narrowing of the ureter can be demonstrated the trauma resulting from dilatation would seem to contraindicate the general use of this method of treatment. Cystoscopy may be greatly facilitated and the bladder irritability markedly relieved in many of the very advanced cases by daily bladder lavage with mild irrigating solution.

The prognosis in chronic pyelonephritis was carefully studied in a group of 2,040 cases. They roughly fall into three groups of one-third each. One group with or without any very definite treatment seems to be eventually self limiting. A second group will be of the type that may never be considered cured, but in which the symptoms, as they appear from time to time, will show very marked improvement by appropriate treatment. There is still a third group which, in spite of treatment,

will be very slowly progressive and will eventually result fatally. It is possible, by means of the various diagnostic procedures available, together with observation of the results of treatment, to fairly well classify the individual cases into these three general groups.

AUTOPSIES — THEIR IMPORTANCE, WITH SUGGESTIONS FOR INCREAS- ING HOSPITAL NECROPSY PERCENTAGES*

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Someone has created an adage to the effect that a hospital is no larger than its pathological laboratory; and another that, strictly speaking, every death is a clinical failure. Both of these generalities must of course be qualified, but each makes in its essence one demand, and that the more frequent and thorough post-mortem study of the manifestations of disease.

The crying need for this has never been shown more strikingly than in Richard Cabot's report on 3,000 autopsies performed at the Massachusetts General Hospital¹. There under the eyes of a carefully chosen clinical staff, the following conditions were incorrectly diagnosed or entirely missed in the percentage of cases appended: diabetes mellitus—5 per cent; typhoid fever—8 per cent; aortic regurgitation—16 per cent; lobar pneumonia and chronic nephritis—26 per cent; cerebral tumor, tuberculous meningitis, and gastric cancer—28 per cent; mitral stenosis, cerebral hemorrhage, septic meningitis, and aortic stenosis—30-40 per cent; active tuberculosis—41 per cent; thoracic aneurysm—50 per cent; hepatic cirrhosis, acute endocarditis, peptic ulcer, suppurative nephritis, renal tuberculosis and bronchopneumonia—60-70 per cent; Pott's disease, hepatic abscess, chronic myocarditis, and acute pericarditis—70-80 per cent; and acute nephritis—84 per cent. A similar report by Karsner, Rothschild, and Crump² from a group of Cleveland clinics showed 8 per cent gross, and 60 per cent minor errors, with only 11 per cent of diagnosis entirely correct. Cabot's report was published thirteen years ago, and much water has coursed under the medical bridges of the world since then, bringing with it refinements in diagnostic technic, for the most part of an instrumental or laboratory character. However, the moral still holds,

* Read before the staff of the Receiving Hospital.

that to keep a suitably "humble and contrite heart," and a sense of one's diagnostic and therapeutic limitations, a more general use of the post-mortem room must be practiced.

AUTOPSIES IN DETROIT

This subject was brought to mind particularly as the result of an informal autopsy census, which was recently undertaken in Detroit, in which an attempt was made to obtain an accurate ratio of deaths to autopsies in the larger general hospitals of this community. Out of twelve inquiries sent out, eleven replies were received and the following is a resume of the data assembled:

	1922	1923	1924
Deaths	2,184	2,847	2,898
Autopsies	275	426	439
Percentages	12.6%	14.9%	15.0%

Although there has been a pronounced increase in the total number of post-mortem examinations performed, and some slight increase in the actual percentage ratio, the figures are rather discouraging, particularly when compared with those received simultaneously from more than a dozen representative eastern and mid-western general hospitals, picked more or less at random from the more widely known of this group:

	1922	1923	1924
Deaths	8,383	9,347	9,714
Autopsies	2,794	3,266	3,141
Percentages	33.4%	34.9%	31.5%

Among these were four municipal charity hospitals, with a composite percentage over the three years of 26.7%, and three institutions in which the patients are largely Jewish, whose total percentage over this period was 28.3%. These figures tend to refute contentions commonly voiced in hospitals whose records are inferior.

With the larger European and many Canadian hospitals running percentages varying between 80 and 100%, comparisons become even more odious. However, it is interesting and heartening to note that the situation in Chicago was very similar, and in fact the general percentage almost identical with that in Detroit, before measures were taken a few years ago (3) to arouse a more general interest in the obtaining of permission for post-mortem examinations. Since that time there has been a marked improvement, and this report takes origin from an attempt to duplicate these results in Detroit.

IMPORTANCE OF POSTMORTEM

One might query wherein lies the importance of a systematic performance of post-mortem examination on all available deaths occurring under one's observation. Perhaps the best single answer to this question lies in the improved morals of both attending and resident staff in these institutions where an autopsy is routine rather than an event of rarity. With frequent opportunities for checking up one's clinical impressions, there is an unquestioned tendency toward increasing the minuteness of investigation, the accuracy of the case history, the placing on record of opinions and, all in all, the leaving of no stone unturned in arriving at a correct diagnosis. For oftentimes, by post-mortem examination alone are we able to confirm this diagnosis, and in many instances to explain the presence of some physical or laboratory finding, difficult or impossible of interpretation otherwise. Thus did Corvisart, Bright, Hodgkin, Addison, Auebruegger, Laennec, Skoda, and others of their ilk, correlate physical signs and autopsy findings and put the art of clinical diagnosis on a plane which without the disclosures of the dead-house would have been absolutely impossible.

Vital statistics are largely vitiated by the inaccuracy of diagnosis entered as causes of death on the mortality reports both of our hospitals and of the state boards of health. Necropsy records furnish the only means of correcting this situation, and give us actual anatomical findings rather than the too often false and misleading data ordinarily entered on our death reports.

In teaching hospitals, the matter takes on an aspect of paramount importance, being invaluable in properly nourishing and directing the tender shoots of clinical aptitude. For the student, more perhaps than any other, needs the chastening influence of the autopsy room on a premature enthusiasm, witnessing, as is inevitable, the mistakes of his elders, with an occasional diagnostic triumph, "the lump that leaveneth the whole loaf."

For our pride in the institution of which we form a part, we must know that our hospital is being judged, in no small part, by its percentage of autopsies, and the use that is made of them. Through them doors are being constantly opened into fascinating realms of medical romance, which, when entered, may lead to discoveries of incalculable benefit to humanity. Hence it is not without good reason that

public health surveys give autopsy percentages as one index of the scientific attainments of a hospital staff.

METHODS OF APPROACH

Although frequently and probably more fully done before, it may not be amiss to outline a suggested technique of approach, which has been successful in a considerable number of cases where it has been used. I say "technique" advisedly, for tact, gentleness, sincerity, and patience are the keynotes in advancing a proposal against which there is ordinarily a marked preformed prejudice.

In the first place, it must be the duty of certain members of the staff to so instruct the incoming interne that he will at least have a program on which to proceed, when a death on his service brings the matter before him. The most important points, I believe, are briefly as follows: (1). The doctor who has been the closest to the patient and his relatives should assume the interview. (2). The nearest relative or friend should be approached—whenever possible alone. Additional listeners only mean more objections to answer, and, legally, the signature of the person next of kin is all that is required. (3). Favorable attention should be gained by explaining the procedure as a scientific investigation, done by skilled persons, not mutilating nor desecrating, and interfering in no way with the later preparation of the body. Words such as "autopsy," "cutting," "knife," and the like should be avoided, and "opening," "instruments," "examination," etc., used in their stead. (4). Point to the chart as mute evidence of what has been done for the deceased, and indicate that even with all of our best efforts, we are only able to carry so far, and that borderline cases baffle the best among us. (5). Call attention to the importance to the family of knowing the true and complete diagnosis, for it is their right and duty that they should know, from the viewpoint of personal satisfaction, particularly in an impending marriage in the immediate relationship, in settling insurance claims, and the chance that often incidental pathology of vast importance is disclosed. In appropriate cases may be stressed the possible benefit to the hospital in the management of the next case of similar nature; to humanity and the science of medicine generally, by enlightening as to the true character of certain maladies with a symptom complex like that exhibited by the de-

ceased, and enabling us thereby to earlier recognize and treat them, and not to stand helplessly by as may have been done in this case. For "in our obligation to the patient of today, we must not forget that there is a responsibility equally binding to the patient of the future." Naturally, on this point, as in others, our arguments must be varied, depending on the type of individual with whom we are dealing. (6). Never become angry or impatient, for "the right to refuse is inalienable," and once the person approached is ruffled or irritated, one is in a cul de sac from which there is no emergence. (7). Do not put the final question until reasonably sure of a favorable answer, for after a request has been made and refused, further parley is usually futile. (8). When permission is granted and the proper paper signed, leave promptly and have the autopsy performed as soon thereafter as practicable.

Objections may and will be raised, and these must be reasonably answered. They will fall in the main under two heads, sentimental and religious. The answer to the former lies usually in an appeal on the grounds of the benefit that might entail if the brother or some one equally near were to fall victim to the same illness, a happenstance not uncommon in the same stock; also, in his last opportunity to do something for suffering humanity, would not the deceased answer in the affirmative. The latter, or religious aspect, while sometimes offering an insurmountable barrier, can be truthfully refuted by statements of rabbi and priest high in influence in their respective faiths. They have definitely stated that there is nothing in their creeds which makes impracticable the post-mortem examinations of bodies on the ground of scientific inquiry. (Occasionally permission for limited examination may be obtained, when complete post-mortem study has been definitely forbidden.)

CONTRIBUTING FACTORS

To attain maximum effectiveness, the methods outlined above must claim as a background a strict co-operation between the clinical staff and (1) the administrative department of the hospital; (2) the coroner's office, and (3) the undertaker. The first is usually simple, the latter two often difficult, and sometimes impossible of attainment, depending on the personnel of the second, and the type of man making up the third in the community. The importance of the coroner's office will be seen from the statement that in the three

years 1922-1923-1924, inclusive, at a single hospital in our survey, there were 1,766 cases wherein either from the brevity of their ante-mortem period in the hospital, or from conditions surrounding their deaths, the bodies came under the jurisdiction of the coroner's office. Of these but a scant number were available for teaching or staff purposes. We have fervent hopes that there may be a remedy for this situation in the not-too-distant future. As regards the relation with the undertaker, it seems that the Chicago Medical Society has instituted a splendid plan in adopting in 1923 the following resolution:

"Whereas, a real obstacle in the way of obtaining permission to make autopsies is the more or less open opposition by many undertakers who advise against granting permission for various pretended reasons, a favored one being that 'the body cannot be embalmed after autopsies', and

"Whereas, certain other undertakers offer willing and helpful co-operation with physicians in securing autopsies, and announce that they can assure the relatives that the body will look just as lifelike, and can be preserved just as long as though no autopsy had been held, therefore, be it

"Resolved, that the council of the Chicago Medical Society records its hearty approval of the enlightened policy in favor of autopsies, recommends its prompt adoption by undertakers in general, and urges on the members of the Chicago Medical Society to insist on their inherent right, in the interest of the advancement of medical knowledge, to receive co-operation, and not antagonism from undertakers in seeking permission to make autopsies."

This or some similar action might well be taken in any community where the autopsy is a vital issue.

The interest and collaboration of the interne body is of paramount importance. In the fortunate hospital, the simple enthusiasm of the individual men may solve the problem; but, too often some additional stimulation is required. Sturgis (9) instituted a plan at the Peter Bent Brinham hospital of keeping records of the percentage of autopsies obtained by the individual senior house officers on whom the responsibility for obtaining permission rested. These records were made a part of the annual hospital report and the rivalry aroused on parallel services seemed to furnish the additional impetus necessary to produce a sharp and sustained rise in autopsies. This, with perhaps some pertinent reward for the highest percentage obtained should well serve to arouse backward interest in the question of autopsies.

CONCLUSIONS

An autopsy survey in the hospitals of Detroit was undertaken and the discour-

aging reports obtained precipitated the foregoing suggestions for the improvement of the existing situation. With better than 90% of the total available hospital beds represented, there had been, in the years 1922-1923-1924, 7,360 deaths, with 943 autopsies performed, or a total of 12.6%.

An attempt has been made to cover the principal points confronting one in an effort to obtain permission for the performance of post-mortem examination, and the writer feels that if a conscientious effort be made on these or similar lines in every case coming to exodus on our various wards, we may feel assured that a definite rise in our necropsy percentage will take place. With it must come, as an inevitable result, a sharp ascent in the interest of the attending and resident staff, with a consequent increase in the sum-total of our professional effectiveness, and an eventual priceless boon to the science of medicine and humanity generally.

Then may it less frequently be voiced with Matthew Arnold,

"Nor bring to see me cease to live,
A doctor full of phrase and fame,
To shake his sapient head and give
The ill he cannot cure a name."

A bibliography has been appended, which, while in no way complete, furnishes a list of the principal papers consulted in the preparation of this manuscript.

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A CASE OF TULAREMIA, WITH UNUSUAL ASPECTS IN DIFFERENTIAL DIAGNOSIS

GLENN L. COAN, M. D.

WYANDOTTE, MICHIGAN

This case of tularemia is presented because of the scarcity of reported cases in

* Read at monthly staff conference of Wyandotte General Hospital Nov. 5, 1928.

Michigan, and because of certain peculiarly interesting features in differential diagnosis. It is thought that this disease is often missed because of its clinical resemblance to typhoid fever, malaria and certain types of influenza. I have been informed that infected rabbits have been found in Michigan this year, so it would not be surprising to see an increase in human cases in this state in the near future. No description of the disease need be given here, because the entire subject has been brought up to date in an admirable paper by Francis in the Journal of the American Medical Association of October 20, 1928.

CASE REPORT

R. G., a white woman, aged 22, married, with two young children, with a negligible family history, called me on October 4, complaining of chills, fever and exhaustion, beginning late in July, 1928. Her past history was irrelevant, except that in January, 1927, she had a similar attack which confined her to bed only a week, subsiding into a slow convalescence with extreme weakness. There was no history of handling rabbits or other wild animals.

The illness began while she was living in Tennessee, the onset being sudden. She called in a physician once; he thought she might have typhoid fever, and gave her one injection of typhoid vaccine. In September she moved to Michigan, but was unable to be up more than a few hours a day, had her daily chills, and grew progressively weaker. The family called me in because of a growing suspicion that she "might have consumption." Her menses had been suppressed since early in July, but examination indicated that pregnancy was improbable.

Examination October 4 showed slight conjunctival injection, and the ears, nose, throat and teeth revealed no local pathology. Chest examination brought out a systolic murmur over the apex, but there was no other evidence of cardiac nor pulmonary abnormality. The abdomen was flat, with no tympanites. Pelvis, extremities, reflexes and mental condition all seemed quite normal. She had slight bilateral cervical and inguinal adenopathy. The skin and mucous surfaces were very pale and the tongue was moderately coated (white) and dry. From October 6 to 12 she had a papular rash over the arms and trunk.

The temperature was 102 to 104 Fahrenheit, the pulse ranged from 90 to 110, and respirations were never increased above normal. No remissions were noted in the temperature curve, aside from the usual variation from morning to evening.

The laboratory reported a negative urinalysis, and 4,000,000 red cells and 10,500 leucocytes per c.m.m., with 72 per cent polymorphonuclears. Hemoglobin was estimated at 55 per cent. No *Plasmodium malariae* was found in three successive daily examinations. Her Von Pirquet and Wassermann reactions were negative, but the Widal was positive. No growth was found on the

blood culture. A blood specimen sent to U.S.P.H.S. laboratory at Washington was reported as positive for tularemia, negative for undulant fever. No test was done for B. Abortus.

At home the disease was first regarded as malaria, because of the regularity of her chills and the southern origin of the disease. When she failed to respond to a course of quinine by mouth and two intravenous injections, she was moved to the hospital October 8, where the fever continued until October 20. Then it dropped to normal rather suddenly and has remained so. When last seen (November 5) she complained of nothing except extreme weakness. Her heart murmur was still to be heard, but its intensity was lessened.

Nothing was notable in her treatment, except that a single injection of neoarsphenamine did not appear to influence the course of the disease. Transfusion of whole blood was suggested, but refused by the patient, except as a last resort. I should have liked to observe the effect of a direct transfusion from an immune donor, but for obvious reasons this was impossible.

In diagnosis, malaria was first considered, but ruled out because of negative blood smears and the lack of response to the therapeutic test. The positive Widal suggested an infection of the typhoid group, but stupor, sordes, tympanites, soft spleen and characteristic stools were missing from the picture. The agglutination was explained by the injection of typhoid vaccine, which she received a short time ago. Miliary tuberculosis fell into the background after a negative Von Pirquet, and the subsequent course has borne out the reaction. The heart murmur and extreme weakness suggested a bacterial endocarditis of low virulence. However, the absence of signs of decompensation and the negative history in relation to rheumatism and focal infections led away from that hypothesis. Even after tularemia was diagnosed, I did not abandon the idea of an acute cardiac infection until an abrupt, afebrile convalescence ensued. I believe her murmur is functional, though I cannot dispute the opinion that there may be an underlying chronic mitral lesion.

In his report Francis suggested that this is probably a recurrent tularemia of the typhoid type, arising from an insect bite. This type of case has been prevalent in Tennessee, and recurrences have been recorded as late as twenty-three months after the primary infection. I am in accord with his suggestion, and very grateful for his assistance in working out the diagnosis.

MICHIGAN'S DEPARTMENT OF HEALTH

GUY L. KIEFER, M. D., *Commissioner*

NORMAL SCHOOL PROGRAM STARTED

The possibilities and disabilities of the rural school in the matter of health supervision and training have long been recognized, but the solution has not been so obvious. With the offering, this summer, of a series of twelve lectures to the 50 county normal training classes in the state, the department took a definite step toward the better training of teachers in the field of health. At the request of Webster H. Pearce, superintendent of public instruction, the series was also offered to the four state teachers' colleges.

Thirty-four of the county normal school principals accepted the department's offer and the first series of lectures will start at Kalkaska on November 5. They will be given by the bureau directors, each one talking on his or her specialty. According to the present schedule, the last normal will be visited in May, 1929, with eight weeks of lecturing by each speaker.

The following outline will show the type of material given. Each lecturer spends two forty-minute periods in each school, one devoted to lecturing and the other to demonstration.

OUTLINE OF LECTURES

I. Control of Classroom Contagion

Lecture deals with the general principles of the control and prevention of the common communicable diseases affecting children of school age, explaining their methods of transmission, the early indications, and the recommended classroom procedure. The major emphasis is placed upon prevention, including a brief discussion of the principles of immunity and their practical application in the prevention of diphtheria, scarlet fever, smallpox, and typhoid. The plan of state and local health administration as it relates to schools is explained.

The rules and regulations of the Michigan Department of Health for the control of common communicable diseases are used as the basis of the discussion.

II. Child Hygiene

Lecture describes the normal child, discussing height, weight, posture, skin, eyes, ears, breathing, teeth, throat, and extremities. Takes up the recognition of abnor-

mal conditions for which a child should be referred to the family physician. Emphasizes the essentials for good health, including shelter, food, rest, fresh air, sunshine, general health habits, and recreation.

A demonstration inspection of one child by the lecturer is followed by the inspection of children by the normal school students themselves, with comment by the lecturer.

Concludes with a brief description of the child care classes taught by nurses on the staff of the Michigan Department of Health and by local public health nurses. The department's Child Care Manual is given each student with recommendations for its use in the classroom.

III. Mental Hygiene

Lecture discusses the development of the mental hygiene movement and the close correlation existing between mental health and general health. Takes up some of the principles underlying the formation of good mental habits and the prevention of bad ones. Stresses the practical application of these principles both to pupils and teacher.

IV. Mouth Hygiene

Lecture takes up briefly the history of disease prevention and the relation of mouth hygiene to public health, discussing the recent advances in medical science as they relate to the hygiene of the mouth. A brief review of present mouth conditions among school children is given, stressing the effects of these conditions upon health and scholarship. This is followed by a discussion of the causes of tooth decay and the methods of prevention.

Emphasis is placed upon early dental attention and proper foods. Simple and practical methods of introducing mouth hygiene measures into the classroom are outlined, together with available mouth hygiene educational material. To complete the discussion, a demonstration dental examination is made of the children in the critic room.

V. Visual Aids in Teaching Health

Lecture discusses the visual aids which involve physical activity, including the ex-

cursion, modeling in different mediums, use of the sand table, drawing, painting, sewing, etc. Takes up the use of the flat picture, the illustrated text, the value of picture collections, the use of charts and graphs, and the making of posters.

Practical suggestions are given for different health activities through which the self activity of the child is awakened and his energy enlisted in the actual doing of the health habits.

VI. *Methods and Material in Teaching Health*

Summarizes briefly some of the methods used successfully in teaching health habits and attitudes, and outlines the materials available.

Includes a review of the main points of the foregoing lectures, and a concluding health knowledge test.

SIGNIFICANCE OF TWO PLUS BLOOD TEST IN TREATED CASES

In response to a recent query as to the significance of a two plus blood test the following answer was made. Queries of this kind are sufficiently frequent so that it is thought best to publish the answer. Greater detail would have been possible in a longer communication. The letter follows:

"Your letter is at hand, asking for an opinion of the significance of a two plus blood test in cases having had previous treatment.

"The Wassermann test or the Kahn test is of great value in determining whether a patient has syphilis or not. Once having made the decision that the patient has syphilis, I think the significance of the subsequent blood tests is somewhat diminished. The facts are, that the patient is syphilitic and needs at least three years of intensive treatment with arsenic and mercury. No blood test or finding of any kind have any bearing on this matter. I think we have been inclined to lean too much on a serological test as a "control of treatment." There is no blood test that will in any way change the diagnosis or alter the necessity of three years or more of treatment once diagnosis is established. It has been said of some clinicians that they treat the blood test of the patient rather than the disease of the patient. Perhaps this had been true in a few cases, as it would be a very easy error to fall into. If a patient has had syphilis and had received less than three years of intensive treatment, I would feel that it was of utmost im-

portance that he should receive whatever part of the three-year treatment had been omitted. I would take this position without regard to the blood test. At the beginning of the treatment, I would take a blood test and if it showed two plus positive I would feel that it confirmed my previous position. If the blood test was negative, I would feel that the patient needed that fraction of the three years' treatment that had not yet been received.

"You will note that I have frequently referred to the three years of treatment as being essential. In the army or other places where cases can be studied for long periods, they are finding an increasing number that require five years of treatment before they can be said to be cured. Of course, a great deal depends on the definition of cure. For those of us who must meet the world as we find it, I think it is well not to be too idealistic in this matter. We will certainly be accomplishing a great good for our patients and there will be far less tabes and paresis, if we can get them all to have at least three years of intensive treatment."—D.M.G.

PUBLIC HEALTH IN HOLLAND, MICHIGAN

The attention of physicians and health officers in several parts of the state has been drawn to the effective health program carried out by Dr. Daniel G. Cook, the health officer of Holland. He conceives the duties of the office to be largely that of formulating and getting into practice, the sound, well worked out public health procedures.

He sees in the physicians of his city the best possible means of giving to the people the best that is available in preventive medicine. The physicians of Holland act as the clinical arm of the local health department and carry out all the clinical work undertaken by the department.

No clinical work is undertaken by the health officer, all of it being done by the physicians in active practice in the city.

A program of preventive medicine has been worked out by the physicians of Holland and their health officer that has made their city singularly free from the acute contagious diseases. In the fall of 1926 a program was worked out whereby the physicians of Holland immunized the entire school population against diphtheria. The health officer carried out the educational work, the propaganda and the organization of the work. The clinical work of administering the toxin-antitoxin

was all done by the physicians practicing in Holland.

So successful was this plan of promoting public health work that the following year the same form of organization was used to immunize the entire school population against scarlet fever.

As a direct result of this work, there has not been a case of diphtheria in a school child for the past two years.

The amount collected by the physicians for their work was slightly more than they would have received by taking care of the ten cases of diphtheria and one death that had been the previous yearly average. Nevertheless, by spending this money for prevention, the people have made diphtheria ancient history in their city and they have their children with them instead of adding to the number of children in the local cemetery.

Although the prevention of scarlet fever by active immunization has not had the long use that diphtheria immunization has had, the success of the diphtheria prevention work urged them to apply the same principles to the prevention of scarlet fever. The following year a similar piece of work was done in the active immunization against scarlet fever. Since the scarlet fever immunization has been carried out, there has not been a case of scarlet fever in the city of Holland, notwithstanding the fact that the township around the city has had many cases. So successful were the two previous campaigns of disease prevention that it was decided to do it again this fall. The same organization was used again. The health officer organized the work and informed the public concerning it. The physicians practicing in the city did all of the clinical work.

This year toxin-antitoxin and smallpox vaccine was administered to all children who had entered school since the previous work was done.

Holland is not the first nor the only city in Michigan to carry on work of this kind, but it is of importance that Holland should be added to the growing list of cities where the health officer can combine the forces of his office with those of the organized medical profession for the benefit of the public who, after all, are ones to be served.

D.M.G.

WOMEN'S CLASSES

The Michigan Department of Health offers to women in rural districts a series of six talks and demonstrations on maternal

and infant hygiene. The talks are given by a woman physician and the demonstrations by a graduate nurse.

Previous to organizing the classes in a county from which a request has been received for this service, the physicians of the county are visited and informed as to the nature of the classes and the method of conducting them. The approval of the physicians is always secured before any attempt is made to organize the classes. The subjects discussed are as follows:

Prenatal Care.

In this lesson the physician in charge of the classes discusses the hygiene of pregnancy including food, rest and exercise, and clothing, and stresses the importance of regular medical supervision throughout pregnancy. The nurse demonstrates the preparation and sterilization of supplies for home delivery, the preparation of the bed for home delivery, and the nursing care of the mother and baby during the lying-in period.

Infant Care.

The care of the child up to two years of age is included in this talk. The importance of breast feeding for the well-being of the baby is discussed, as well as the need of proper diet and sufficient rest for the nursing mother.

General hygiene of the infant is taken up; the nurse demonstrates bathing and dressing the baby and a model layette is exhibited. Mothers are told of the benefit of sun baths to aid in development of the baby and to prevent rickets. Mothers are advised whenever possible to have their babies under medical supervision.

Care of the Pre-School Child.

The child of pre-school age is discussed in a separate lesson, and mothers are told the foods necessary for the growing child. The need of sufficient rest and exercise are pointed out, and also the importance of protecting children of this age against disease by avoiding exposure to communicable diseases and by inoculation against diphtheria, smallpox and scarlet fever. Behavior problems and child training are included in the consideration of the pre-school child. Periodic examinations, followed by correction of defects, are urged, and attention called to the fact that it is particularly in the pre-school age that many defects develop, early correction of which is necessary for the normal mental and physical development of the child.

A lecture on the development and care of the teeth, and one on foods and food values in general, complete the course.

Roscommon and Ogemaw counties are now having intensive three-week courses in maternal and infant hygiene, taught by Dr. Ida M. Alexander of the staff of the Bureau of Child Hygiene and Public Health Nursing.

LABORATORY NOTES

It was announced last spring that the Michigan Department of Health was ready to distribute scarlet fever antitoxin. There is a supply of scarlet fever antitoxin ready for distribution to any physician who wires or writes for material. The funds of the Department are insufficient to go into general distribution at this time, as there are no funds available to pay for a stock of scarlet fever antitoxin to be placed with distributors for distribution in the manner we are now distributing diphtheria antitoxin.

On Monday, November 19th, at East Lansing, a meeting of clinical pathologists and bacteriologists was held for the purpose of organizing a society for the consideration of bacteriological and immunological subjects. The following program of original papers was presented:

1. The Therapeutic Use of Bacteriophage in Suppurative Conditions.—A summary of 175 cases. Thurman B. Rice, M.D., Indianapolis.
2. Filterable Forms of Bacteria. Philip Hadley, Ph.D., Ann Arbor.
3. The Effect of Sunlight and Ultra-violet Light on Kahn Antigen. Grace Lubin, Ph.D., M. B. Kurtz, D.V.M., and Mary Crowley, M.S., Michigan Department of Health.
4. Pathology of B. Abortus Infection. E. P. Hallman, D.V.M., East Lansing.
5. Intestinal Lesions in Coccidiosis. H. J. Stafseth, D.V.M., East Lansing.

An interesting symposium on microbic dissociation was carried on under the chairmanship of Professor Philip Hadley of the University of Michigan. Dr. F. d'Herelle, discoverer of the bacteriophage, spoke upon this subject before a large and enthusiastic gathering. This meeting was sponsored by the Lansing branch of the Society of American Bacteriologists and the following organizations: Ingham County Medical Society, Michigan Department of Health Laboratory, Michigan State College Department of Bacteriology, Society of Sigma XI, East Lansing branch

of the American Chemical Society, Society of Phi Kappa Phi, and the Society of Phi Sigma.—C.C.Y.

A LARGE ORDER

Michigan Department of Health,
Guy L. Kiefer, M.D., Commissioner,
Lansing, Michigan.

Dear Sir:

Will you please send me the following pamphlets and also the list of the pamphlets that you have.

Public Safety
Public Utilities
Education
Taxation
Community

Anything that you have about:

Shakespeare
The Writing of Themes
Police

Yours truly,

(Signed)

ENGINEERING ACTIVITIES

Because the concrete of twenty years ago was not as water tight as that used now, a number of the inmates of the Michigan Home and Training School at Lapeer developed infection when a sewer on the grounds clogged and backed through an open pipe end. Sewage seeped through the ground the short distance from the pipe to the storage reservoir, and through the concrete wall of the reservoir, contaminating the school's water supply.

Even before the water sample sent to the state department laboratories was completely analyzed a wire was sent to Dr. Kay, superintendent of the school, saying that something was radically wrong, that the water was grossly polluted and unsafe. An engineer from the department immediately installed an emergency chlorinating apparatus while an investigation was being made. The open pipe end was soon found, and tests of the soil showed unmistakable contamination. The easy passage of water through the concrete wall of the storage reservoir was demonstrated when a trench was dug to inspect the reservoir wall.

Thorough disinfection of the polluted soil area and careful blocking of the open pipe end put a stop to the development of new cases.

An engineer has been assigned to work with the Grand Rapids Anti-Tuberculosis Society in their program of inspection of the county's rural school water supplies. Within the past two years the society has

collected and sent to the department laboratories more than 200 water samples from rural school wells. A total of about 75 samples indicate the need of special investigation, and this has already been started.

Surveys have now been completed for sewage disposal systems at the Michigan College of Mining and Technology at Houghton, the Michigan Branch Prison at Marquette, the State Hospital at Newberry, the State Hospital for the Insane at Ionia, the Michigan Reformatory at Ionia and the State Public School at Coldwater. Previous surveys have been made for the colony at Kalamazoo State Hospital, and the Girls' Training School at Adrian. Cost estimates are now in preparation.

Construction work at Camp Grayling is progressing rapidly. The sewage system is three-quarters finished, the water reservoir is completed, of the sewage disposal plants one is finished and the other is partly done, one well is completed and the other nearly so, and the pumping station building is at least two-thirds finished. One of the biggest items is the plumbing, and this is more than half done. The pipes for the water mains have been delivered but they are not yet laid.

Plans were recently prepared and construction supervised of the new sewerage and sewage disposal system at the Children's Home maintained by the Veterans of Foreign Wars, four miles from Eaton Rapids.

The breaking of ground marking the beginning of construction work on Grand Rapids' new \$1,400,000 sewage disposal plant was to be marked with appropriate ceremonies on November 2, according to an invitation received by Colonel Rich from City Manager Locke.

Mr. Locke says in part, "This is indeed an important occasion for Grand Rapids, in which we feel that you have a very interested part in that it marks the conclusion of a problem that has been with us since 1913. The occasion is furthermore of interest because it immediately precedes the November election, at which time Grand Rapids hopes to make possible for this city the most complete and well ordered system of financing disposal plants that exists anywhere in this country today."—E.D.R.

VISITS OF ENGINEERS DURING THE MONTH OF OCTOBER, 1928

Inspections of Railroad Water Supplies: total 25.

Baldwin	Grayling (2)
Benton Harbor	Harrison
Boyer City	Marshall
Cheboygan	New Buffalo
Clare	Owosso (2)
Durand	Petoskey
East Jordan	Saginaw (3)
East Tawas	Taylorville
Edmore	Vassar (4)

Inspections and Conferences, Sewerage and Sewage Disposal: total 14.

Bronson	Interlochen
Carleton (3)	Lansing
Chelsea (2)	Niles
East Lansing	North Porte Point
Flint (2)	Northville

Inspections and Conferences on Water Supplies: total 19.

Belleville	Haslett (3)
Caledonia	Muskegon
Carleton (4)	New Hudson
Flat Rock (2)	Sparta (5)
Harrison	

Inspections and Conferences, Stream Pollution: total 6.

Battle Creek	Coldwater
Bronson	Lansing (3)

Inspections and Conferences, Institu- tions: total 45.

Coldwater, State Public School, Sewage Disposal (3)
Eaton Rapids, V. F. W. Home, Sewage Disposal (15)
Grayling, National Guard Camp, Water and Sewers (2)
(Full time of two engineers on this work)
Ionia State Reformatory, Sewage Disposal (8)
Ionia State Hospital, Sewage Disposal (8)
Lapeer, Michigan, Home and Training School, Sewage Disposal (2)
Lapeer, Michigan, Home and Training School, Water (7)

Inspections and Conferences, Swimming Pools: total 2.

Belleville (2)

Inspections and Conferences, Miscel- laneous: total 13.

Carleton, Sewage nuisance (3)
Detroit, Meadowbrook Country Club, Sewage Disposal
Grass Lake, School well (2)
Lansing, Resort Sanitation
Manistee, Scout Camp Sanitation
Maple City, Resort Sanitation
Merrill, Nuisance (2)
Okemos, Septic tank for private home
Walloon Lake, Resort Sanitation.

PREVALENCE OF DISEASE

	October Report Cases Reported			Av. 5 yrs.
	September 1928	October 1928	October 1927	
Pneumonia	241	326	239	265
Tuberculosis	233	735	523	442
Typhoid Fever	61	44	78	127
Diphtheria	239	498	403	634
Whooping Cough	874	850	442	407
Scarlet Fever	322	559	489	725
Measles	75	176	140	295
Smallpox	36	55	38	65
Meningitis	17	40	8	9
Poliomyelitis	25	13	91	60
Syphilis	1,512	1,567	1,367	1,275
Gonorrhea	921	985	1,057	1,027
Chancreoid	9	12	9	15

CONDENSED MONTHLY REPORT

Michigan Department of Health Laboratories

Lansing Laboratory

	+	-	+-	Total
Throat Swabs for Diphtheria				2064
Diagnosis	71	358		
Release	187	468		
Carrier	23	933		
Virulence Tests	16	8		
Throat Swabs for Hemolytic Streptococci				1350
Diagnosis	182	202		
Carrier	155	801		
Throat Swabs for Vincent's	52	377		429
Syphilis				8508
Kahn	1342	7090	73	
Wassermann	1	1		
Darkfield		1		
Examination for Gonococci	184	1310		1494
B. Tuberculosis				449
Sputum	93	356		
Animal Inoculations	3	47		50
Typhoid				172
Feces	4	63		
Blood Cultures	2	44		
Widals	5	51		
Urine		3		
B. Abortus	2	36		38
Dysentery	1	63		64
Intestinal Parasites				33
Transudates and Exudates				265
Blood Examinations (not clas- sified)				147
Urine Examinations (not clas- sified)				366
Water and Sewage Examina- tions				530
Milk Examinations				89
Toxicological Examinations				5
Autogenous Vaccines				156
Supplementary Examinations				599
Unclassified Examinations				16808
Total for the Month				58563
Cumulative Total (fiscal year)				4865
Increase over this month last year				20049
Outfits Mailed Out				158400
Media Manufactured, c.c.				2270
Typhoid Vaccine Distributed, c.c.				6008
Diphtheria Antitoxin Distrib- uted, units				58770
Diphtheria Toxin - Antitoxin Distributed, c.c.				5962
Silver Nitrate Ampules Dis- tributed				1491
Examinations Made by Hough- ton Laboratory				6793
Examinations Made by Grand Rapids Laboratory				

FURUNCULOSIS IN INDUSTRY

Occupational furunculosis has become so prevalent as to be known by identifying names applicable to the trades in which it occurs. "Salt infection," reported by Thurber and "sugar boils," described by Young, are recent instances. Medical literature reveals its common occurrence among ice cream handlers, beet sugar workers, butchers, lathe operators, bakers, oil workers, machinists, soap makers, tallow refiners, cold storage work-

ers, fertilizer makers, tar workers and street sweepers. The individual cases in each locality may be few, but their number in the aggregate demands attention. In ice cream handlers, in whom the skin is exposed to rock salt and water, salt infection is said to be due to "seeding" the hair follicles with pyogenic organisms normally found on the body and in the extraneous dirt that comes in contact with the skin. In beet sugar workers, sugar boils are said to be due to sugar dust and perspiration forming a culture medium suitable for the proliferation of these organisms on the body surface. In lathe operators it is said to be due to an infection of the minute wounds made by small pieces of metal that pierce the skin in the course of the work, or to the sealing up of organisms in the hair follicles by the oil that comes in contact with the skin, or to organisms being deposited there by the oil. In cold storage workers it probably results from lowered body resistance due to the sudden and frequent changes in temperature. In the other occupations it is also a natural outcome of the job in which the organisms normally found on the skin get a foothold as a result of conditions under which the work is done. It is the most common skin disorder among workers in the oil and sugar industries and is frequent in all occupations in which workers use their hands. The disease may be localized or systemic, depending largely on the general condition of the patient. If it becomes systemic it may lead to osteomyelitis, pericarditis or endocarditis. The organisms most commonly found are *Staphylococcus albus* and *aureus*. Such disease conditions hamper industrial progress, causing workers to seek other employment and raising multiple questions of compensation. Here again manual labor becomes martyr to the microbe.—Jour. A. M. A.

CALIFORNIA X-RAY LABORATORY
TO CO-OPERATE WITH BREEDERS

A new X-ray laboratory, for use in plant breeding experimentation, has been installed at the University of California, and will be available for co-operative researches by workers in other parts of the country. The plan is to have projected experiments submitted in outline to a special Committee on X-ray Experimentation at the university, and when this committee has given its approval, the pollen or other plant material to be X-rayed will be sent in to the laboratory, treated, and returned to the experimenter, who will observe and report the results obtained. In this way it is hoped to develop new varieties of fruits, crop plants and ornamentals which otherwise might never have come into existence. At the same time, results of value from the purely scientific viewpoint are expected.—Science Service.

FORMER GERMAN GIBRALTAR NOW
BIOLOGICAL STATION

Heligoland, the high, rocky North Sea island that was the Gibraltar of pre-war Germany, once counted nothing but new guns or submarine mines as valuable additions to its equipment. Now it boasts of a new aquarium, where German naturalists and their guests may observe the ways of North Sea fish, and watch the technic of diving seals and sea birds. One of the special features of the new building is an "arena" tank large enough to accommodate a large number of mackerel or other swarming fish and permit observations of their behavior when swimming as a school.—Scientific Service.

THE JOURNAL

OF THE

Michigan State Medical Society

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DECEMBER, 1928

"I hold every man a debtor to his profession, from the which as men of course do seek to receive countenance and profit, so ought they of duty to endeavor themselves, by way of amends, to be a help and ornament thereunto."

—Francis Bacon.

EDITORIAL

THE HOSPITAL SITUATION IN MICHIGAN

It is hoped that every one will read carefully the report of the committee appointed by the Michigan State Medical Society to survey and study problems of hospital charity in the hospitals of this state which appeared as a supplement to the November number of the Journal. The committee consisting of Doctors R. R. Smith of Grand Rapids, chairman; J. Walter Vaughan of Detroit and W. H. Marshall of Flint, Mich., deserve the thanks of every interested reader for this most exhaustive study of the subject. It has extended over a period of two years and the present report, together with the preliminary report, should be preserved as a matter of study and record. It is seldom that a committee goes into the subject entrusted to it in such exhaustive detail.

The report, it is seen, is divided into two

parts, part 1, relating to community hospitals and part 2, to the University Hospital. It is not the object of this editorial comment to summarize this work which has been done so effectively, but to call attention to features which might well be emphasized. In the first place the hospitals apparently have as vexatious problems as the medical profession have. Mention is made of the relation of the social worker to the hospital. It has been felt in some quarters that undue sympathy on the part of the social worker has resulted in the inclusion in the role of charity patients, many who have really no claim to free hospitalization or to free medical care on that basis. The committee has been impressed with the endeavor on the part of the social worker to be fair to all concerned and the report is a plea for greater confidence and greater co-operation between the social worker and the doctor.

Reference is made to the tax exemption privilege of hospitals, with the interpretation that this very fact presupposes a duty to the public, to which institutions contributing to the public treasury are not held. This section of the report, dealing with the subject of hospital financing, should be read in detail as it is well worked out and the patients' relations to the hospital are clearly defined. In regard to charity the report calls for greater co-operation with the doctor in as much as his judgment, though not infallible, is probably the most trustworthy factor in the determination of those who are entitled to charity.

President Coolidge is quoted in his warning against paternalism to which socialized medicine if carried to an extreme would eventually lead. "We believe that the personal practice of medicine is safer in the hands of the private physician than in those of the state." Reference is also made to the situation in Europe, where paternalism has been carried to an extreme. From this the report reasons that it is an axiom that no business or profession can succeed in giving satisfactory service unless the financial returns are in keeping with that service. Therefore the service that a physician may render to the sick must be in proportion to the financial rewards which in turn enabled him to avail himself of all advances not only in medical education but in material equipment as well.

* * *

The section referring to the University hospital is most exhaustive and here

credit must be acknowledged for the whole-hearted co-operation with this committee to Dr. Harley A. Haynes, director of the University hospital. The statistics, together with those of the preliminary report of last year, go a long way to clarify the situation.

The committee has accepted the definition of the state medicine as compiled by the American Medical Association. In its definition the American Medical Association recognized certain broad duties that devolve upon the state such, for instance, as the medical service of the Army and Navy and public health service which has to do with the control of communicable diseases and such other services approved by the State Medical Society. The report goes on to amplify public health work as it obtains in this state in the way of prevention of disease and public health education. It recognizes the duty of the health department over such public institutions as prisons and asylums of the various kinds as well as the employment of city and county physicians to care for the indigent.

* * *

The part of the report dealing with the University medical school is very full and complete and in our opinion fair. We must not lose sight of the fact that the University is *our* University, and that those who have had the advantage of academic training whether graduates of the State University of any other university are somewhat closer to the head of our educational system than non-graduates could be expected to be. The report goes into detail in regard to the classification of patients and their availability as teaching material. It is noted that in some departments there is an excess of patients while in others naturally a deficiency in the amount of teaching material desirable.

Group 6 consists of patients who are able to pay in addition to their hospital charges, fees for professional services, and are admitted to the services of medicine, surgery or X-ray; these average 684 a year. The idea of this group is to provide extra revenue to meet the need for increased salaries demanded by a full-time service. It is related that the fees from this group provide approximately 25% of this cost. The report disparages this practice and favors an arrangement whereby the physicians connected with the hospital might supplement their income by private practice. There could be little objection from the profession at large to this idea. It

would at least eliminate the practice of medicine by a state institution. "If the University Medical School and Hospital," continues the report, "to which we look for the highest standards, not only in scientific medicine, but as well in medical social ethics, are receptive to such practice, into what depths of unsoundness may not the rest of us be induced to dip? We suggest that very serious consideration be given to the question of this practice, and that it be annulled, if not at once, at least gradually."

In conclusion the report anticipates the day when the University of Michigan Medical School will not only send out well qualified medical men as in the past, but will continue its interest in them in the way of post-graduate instruction.

WHERE ELECTIONS FAIL

The Journal of the American Medical Association in a recent number commented on the work of the National Research Council in its investigation into the functioning of the office of coroner in this country. Probably the only class of people in the United States who are competent to make an intelligent selection of candidates and to vote on the office of coroner is the medical profession. As it is at present, the most ignorant voter in the country has the same privilege, or same responsibility, as the case may be. The medical profession are almost at the same disadvantage on the other hand when it comes to the selection of a judge, or prosecuting attorney requiring a special knowledge of the law, a city treasurer requiring technical knowledge of accountancy, or the selection of a keeper of a dog pound. How often have we gone to the polls to vote, to be confronted with a list of names of persons of whose qualifications we had not the slightest knowledge. The system is the outcome of the fact that when this country revolted against a monarchical form of government it went to the other extreme of democracy. The British system, after all, seems to render the greatest efficiency. A well chosen county council, city council or state legislature is in a better position to select officers requiring special education and technical skill than the body politic at large can ever hope to be.

The Journal of the American Medical Association gives numerous reasons why the office of coroner should be independent of periodic election. They may be summarized as follows:

"A politically elected medical coroner finds

himself confronted with embarrassing questions of political patronage. His personal and professional conscience is constantly tantalized by demands from his political associates and backers. One day he is asked to omit an autopsy for the sake of the family of the deceased, or to accommodate a politically important undertaker. Then comes a request to falsify his statement of the cause of death in order that the family of a deceased political henchman may have the benefit of the workmen's compensation act, to which they might not be entitled if the truth were told. To save the fair name of some one who had died from criminal abortion or from suicide, and to protect the family from the stigma attached to such circumstances, he is asked to suppress information. Sometimes his aid is sought to give the family of a deceased person the benefit of an insurance policy that covers death by accident, or to enable the insurer to escape liability under a policy that does not cover suicide. While the motives that may tempt a coroner to juggle with the orderly administration of the affairs of his office and with its records may have a political origin, monetary considerations may enter into such transactions, politics serving merely to embolden the wrong-doers by giving them an assurance of protection if discovered. All things considered, as long as the office of coroner is an elective office its duties will be unsatisfactorily performed."

These are possibilities; we do not deny that there are coroners who are not amenable to sinister influences. Similarly, in spite of our system of election of judges, the bench has been graced by some of the finest personalities in professional life. This does not mean, however, that a system of appointment would not secure greater independence for both judge and coroner to the greater efficiency of both.

THE THYMUS GLAND

The possibility of the presence of enlarged thymus is a matter ever present in the mind of the surgeon. It is almost a matter of routine in a number of the better hospitals to examine all children by means of the X-rays before the administration of a general anesthetic. The enlarged thymus gland has so long been associated with status lymphatus that many children in whom enlarged thymus is in evidence are given prophylactic X-ray treatments. O'Brien* maintains that the subject of enlarged thymus resolves itself into two propositions, (1) Is there a symptom-producing enlarged thymus in infants that can be diagnosed by X-rays and relieved by radiation? (2) Is there an enlarged thymus without symptoms in infants, children and young adults that represents objective evidence of status lymphaticus which can be diagnosed by

X-rays and should receive prophylactic radiation?

According to Hammar† the thymus, instead of being a transitory organ, exists and functions until old age, though nothing is definitely known about its function. It is not a gland of definite secretion. It is presumed, however, to have some relationship to the sex glands. Basing their conclusions upon thymectomized animals, Park and McClure conclude that the thymus gland is not essential to life in a dog; extirpation of the thymus produces no detectable alteration in the hair, teeth, contour of the body, muscular development, strength, activity, or intelligence in the experimental animal. Apparently extirpation of the thymus does not influence either growth or development. Friedleben maintained that, though the thymus gland is not essential to life, it had a sort of adjuvant relationship with the spleen and that the thymus and spleen together were essential.

Hammar first demonstrated the so-called persistent thymus to be a normal condition and his conclusions were later confirmed roentgenographically by Wasson.

According to Hammar, fatal symptoms may result from pressure of the thymus on the air passages. It seems then that the danger effects of the so-called enlarged thymus are of a mechanical nature.

Mosher advocates a prophylactic dose of X-rays to all cases which show a distinct thymic enlargement, particularly when a general anesthetic is contemplated. O'Brien states it to be the practice at the Boston City Hospital and the Cambridge Municipal Hospital to examine all cases of young children before administering a general anesthetic and to treat those with enlarged thymus by means of the X-rays. "An infant presenting an enlarged thymus with symptoms should have radiation treatment. An infant presenting an enlarged thymus without symptoms need not have radiation, unless an operative procedure and general anesthetic is contemplated because in this instance an enlarged thymus may represent the normal growth of the gland." Under X-ray treatment involution of the thymus takes place rapidly and apparently without harm, therefore until further knowledge and experience would warrant a different conclusion, the advice here given is reasonable.

* The Diagnosis and Treatment of Enlarged Thymus by X-rays, by Frederick W. O'Brien in the New England Journal of Medicine, October 4, 1928.

† Loc. cit.

DANGEROUS COSMETIC AGENTS

The appointment of Mr. E. E. Valentini as executive secretary of the Wayne County Medical Society was confirmed by a unanimous vote taken recently, authorizing an increase in membership dues from \$20.00 to \$30.00 to meet the extra expense not only connected with this new office, but to take care of contingencies that may arise through increased activity on the part of the society. Mr. Valentini has been in office since July 1st. The consensus of opinion of the members is that the creation of the office of executive secretary has been amply justified. The executive secretary is on the job every minute. His services in some respects extend beyond the confines of Wayne county.

Among the health problems of every large city is that of the so-called beauty specialist who seems much in demand. Occasionally the so-called cosmetician or beauty specialist advertises to remove superfluous hair by means of the X-rays, or to remove warts or moles by means of electrolysis. Every physician knows that irritating moles are fraught with danger and that an X-ray machine in the hands of an unskilled person—by which we mean one not conversant with the biological effects of the X-rays—is a dangerous agent. We would go so far as to say the X-rays should never be employed by anyone where the purpose is solely cosmetic. The possibility for harm is too great. In regard to the use of X-rays by cosmeticians Mr. Valentini has obtained the following ruling from the attorney general of this state: "In view of the fact that the X-ray is commonly known to be a dangerous agency in the hands of those not qualified to apply it, I am of the opinion that the right to remove moles and excess hair by the use of electrical apparatus, as provided in the rules and regulations (of the Detroit Board of Health) does not carry with it the right to use the X-ray by cosmeticians."

APPENDICITIS

This is certainly a hackneyed subject and one on which it takes a great deal of courage to write with the hope of saying anything new. According to the Bureau of Vital Statistics, 25,000 people die each year in the United States from acute appendicitis. The American Journal of Surgery editorially warns against the danger of giving laxatives haphazardly in acute abdominal lesions. Particularly is it dan-

gerous to give either castor oil or saline cathartics in acute appendicitis. However, patients themselves are apt to resort to catharsis as first aid in abdominal pain before calling in the doctor. The American Journal of Surgery warns against the use of the ice bag. The feeling of security that comes with the diminution of pain in the application of an ice bag over an inflamed appendix is misleading. This Journal quotes the response of the late Dr. W. F. Campbell to a query as to the possibility of a "cure" of appendicitis by the application of cold. "Gentlemen," said he, "when you use ice in the cure of acute appendicitis you are gambling with death, and the dice are loaded against you." Among the don'ts enjoined by our contemporary are the employment of epsom salts, of castor oil and of ice bags.

COST OF MEDICAL CARE

It has been announced in the Journal of the Michigan State Medical Society that an extensive program is being carried out by specially appointed representative persons of various organizations concerned, to enquire into the problem of furnishing scientific medical care to the people at a price they can afford. The American Medical Association is helping out to the extent of sending questionnaires to each member of the medical profession, the purpose of which questionnaire is to ascertain the amount of the doctor's professional investment. These questionnaires will shortly reach the doctor and will take up the subject of the cost of his medical and premedical training and will make enquiries as to the cost of operating his business together with the amount of his net income.

It is hoped that every reader will co-operate to the extent of returning these questionnaires promptly and carefully filled out. The information contained is absolutely secret. The doctor is not asked to sign his name nor is there any mark or number to reveal his identity.

It is only by careful co-operation with this Committee on the Cost of Medical Care, this time through the American Medical Association, that we can hope to obtain information of any value to anyone. Do not neglect the questionnaire, fill it out carefully and return it promptly.

SCIENCE AND EXPERIENCE

(Manchester Guardian)

We hear so much rather vague lip-service to "science" that there is a distinctly crisp and tonic quality about the note of warning gently sounded

by that eminent champion of knowledge, Sir Arthur Keith. "It is true," he said, "that the highest form of science moves ahead of practice and guides its footsteps, but science often performs her best service not when she moves ahead, but when she follows in the trail of practice." He was thinking, it seems, particularly of medicine, and cited the case of cod liver oil, which was widely used and recommended long before later research proved that its virtues were due to vitamins. This is a case where practice was based upon results, and the function of science, after a very long period of successful practice, has been to explain why the results happen. It is true, of course, that for the purpose of comparing experience with research medicine offers the one field in which experience is bound to be able to put up a pretty good case for itself. Where matters of personal health are concerned the simplest of human beings can tell a hawk from a handsaw. People will not continue to take things that obviously do not agree with them, and if cod liver oil had not succeeded in strengthening the human frame all the vitamins in the world would not have recommended it to favor. In the same way, as Sir Arthur Keith pointed out, the virtues and excellence of sunshine were realized long before anyone knew anything about ultra-violet rays; it did not need a bio-chemist to teach mankind that a place in the sun was a desirable acquisition. Indeed, the art of healing is the one branch of knowledge which must perpetually keep in touch with common experience; even if science could evolve new medicines out of the blue and without reference to previous experience it would still have to test them on the inevitable patient and abide by that intensely pragmatic proceeding.

PLEASED WITH HIS RADIOGRAPH

A photograph's a lovely thing
For sweet sixteen to thirty-nine,
But Oh, the punishment they bring
To forty-plus, and this means mine!
But now I lift my head in pride
In flowing line and melting curve.
I stand a show with any bride,
My X-Ray photograph has verve!
The gall duct casts a rakish shade
Above a colon, barium-white,
The pattern of the lung is laid
In webs of grey, both dark and light.
I vertebrate with artless grace,
My humerus has no callous crooks,
Bi-cuspid bulbs adorn my face,
My knee-pan's right with all the books.
My oblongata shows esprit,
My cerebrum's extremely smart,
The silhouette looks twenty-three, . . .
My X-Ray is a work of art!

—Richard Denham in The
Saturday Review of Literature.

HARVEY AND HIS WORK

By the Editor.

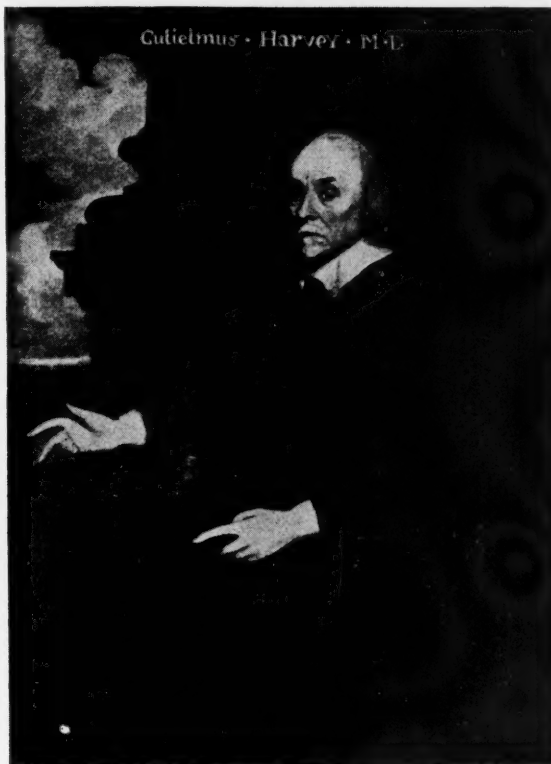
"*Cano librum virumque.*"

—With apologies to Virgil.

A celebration was arranged by the Royal College of Physicians in London on May 14, 1928, in honor of the publication of the *De Motu Cordis* when Sir John Rose Bradford referred to the event as the birthday of physiology and of scientific medicine. The speaker recalled the fact that

Harvey was physician of both King James I and Charles I, and that the latter supplied him with bodies of deer from the royal herds for his anatomical studies. The importance of this celebration may be realized when it is understood that seventeen European countries were represented with six delegates from the United States and six from the British dominions beyond the seas. Eulogies were pronounced by three prominent scientists, Sir Charles Sherrington, the eminent physiologist, Professor A. Chauffard of Paris and Professor Franz Kiebel of Berlin, a noted anatomist.

Sir Charles Sherrington* said in part: "That in William Harvey they bore in remembrance one who was Fellow, Censor, Treasurer, and, for a day, President-elect of the College, its benefactor by gift and bequest, and part and parcel of its



WILLIAM HARVEY, 1578-16.....

From the painting by Cornelius Janssen in the Royal College of Physicians of London.

pride and honor. Three and a half centuries had passed since its birth, and three since his unforgettable book. In science, as in letters, the book is of the man. Harvey's book embodied not only Harvey's thought, but what his hand had contrived, searched for, and found. At the Renaissance the spirit of man turned from an old order, cabined within a rounded scheme of things, to move and inhabit for itself afresh. The new day broke first on scholarship and letters; in science it adventured first among the stars. When it turned to explore the inward meaning of organ and organism, the living function, the Renaissance was William Harvey. . . . The work of Harvey, the spirit of it no less than the import, provides his eulogy and makes superfluous all other. His great discovery, aside from its intellectual worth, secured an item of knowledge than which no other single item has so served to grow,

* British Medical Journal.

as from a seed, medicine as we now know it. And it was the reassertion, the rebirth, of the method of experiment which, wedded to observation, had created the medicine—and the surgery—of the civilized world today. To engender medicine anew is engender a whole world of correlated knowledge; and an attendant world of beneficence no less. The circulation of the blood, the meaning of the heart, the light of a victorious method! May we not affirm that modern medicine does in fact start there? Harvey, founder of modern medicine! He would himself have felt no term can carry richer or lovelier praise from a grateful world."

The year 1928, then, is the tercentenary of one of the greatest events in the annals of medicine, the publication of Harvey's *De Motu Cordis*, in which was described for the first time the circulation of the blood. The significance of Harvey's great discovery cannot be over-estimated. John Hunter placed it in the same class as that of Columbus* and that of Copernicus, while Sir Thomas Brown considered it greater than either. It opened a new world in medicine. While Harvey may be said to be the founder of modern physiology, there was a marked hiatus between his discovery and further experimental physiology until the time of Haller (1708-1777).

INTELLECTUAL INDEPENDENCE NOT KNOWN

During the middle ages men thought and acted corporately, not as individuals; that is, the status of every man was fixed by his place in some body such as a guild, university, or monastery. Individual rights were practically unknown. No one could be said to have possessed the right to anything unless it were to Christian charity. The unit of society of the middle ages was the corporation, not the individual or nation. It was the age of guilds, monasteries, and later of universities. The Greeks, while they excelled in scholarship, had no universities or collections of scholars. They had higher education; their instruction in law, rhetoric or philosophy was of a very high order, but it was not organized into permanent institutions of learning. For this reason Greek learning had become practically extinct during the long period known as the dark ages. During the twelfth and thirteenth centuries occurred what historians named the first renaissance which manifested itself in the rise of universities so-called. The original university did not require great endowments. It bore very little resemblance to the modern institution of learning. The so-called universities were simply groups or collections of students which spread practically all over Europe. Trevelyan gives this description of the early "university": "It was located where scholars could lodge, half a dozen in a room; taverns where they could sit drinking, arguing, singing, quarrelling; churches, which would be borrowed for university functions; rooms where the masters could lecture, each with some precious volume opened before him, while the students on the floor took notes and applauded or hissed him like a rowdy audience at a theatre." Not all students, however, were of this variety. Some cultivated learning on a "little oatmeal". To quote Chaucer's quaint portrait of the clerk of Oxenford:

*"For him was lever have at his beddes heed
Twenty bokes, clad in blak or reed,
Of Aristotle and his philosophye
Than robes riche, or fithelle, or gay sautrye."*

ROGER BACON A LONE STAR

The chief study of the mediaeval university was a peculiar version of Aristotelian logic, the basis of education being grammar, rhetoric and logic, supplemented by arithmetic, geometry and astrology. The rhetoric and logic consisted in exercise in a sort of dialectic that, judging from results, was as futile as Omar Khayyam's experience in his student days:

*"Myself when young did eagerly frequent
Doctor and Saint, and heard great argument
About it and about; but evermore
Came out by the same door as in I went."*

The rise of universities constituted the first renaissance; the second came in the fifteenth century when it resulted in the overthrow of the whole mediaeval system. Coming before this second renaissance, however, one name should be mentioned, that of Roger Bacon, a Franciscan Friar whose genius shone like a star in the night. Roger Bacon, who lived from 1214 to 1294, has been called the father of experimental research. The most significant of his works is a dissertation on what he calls the four "offendicula" or causes of error which, according to him, were authority, custom, the opinion of the unskilled many, the concealment of real ignorance with the pretense of knowledge. He anticipated what we now call the method of science.

THE SCIENTIFIC METHOD

Science is not a body of organized knowledge as it has been defined. So soon as it becomes organized it is no longer science. To consider science a system of results embracing those facts and theories we call chemistry or biology, would seem to simplify our definition, but it would not be satisfactory. Dr. Charles Singer, the learned historian of science, defines science as the process which makes knowledge, or as "Knowledge in the making." It is the growing edge between the known and the unknown. The process of knowing is active and creative. Singer would not apply the name science in the strict sense to fields of completely organized knowledge which have ceased growing. We may realize that the number of real scientists is small. The number of teachers or interpreters of the results of scientific research, as well as those who make use of scientific knowledge, doctors and engineers, is much larger, and perhaps those in sympathy with the methods and aims of pure science are larger still. Let us hope. Science is something that is always changing. We have all realized this. The change is brought about as the result of greater experience and wider knowledge.

*"The old order changeth, yielding place to new;
And God fulfils himself in many ways,
Lest one good custom should corrupt the world."*

In this connection H. G. Wells, speaking of scientific men, says: "I do not mean that scientific men are, as a whole, a class of supermen, dealing with and thinking about everything in a way altogether better than the common run of humanity, but in their field they think and work with an intensity, an integrity, breadth, boldness,

* Realdo Colombo or Columbus (1516-1559) is said to have discovered the pulmonary circulation.

patience, thoroughness and faithfulness—excepting only a few artists—which puts their work out of all comparison with any other human activity. In these particular directions the human mind has achieved a new and higher quality of altitude and gesture, a veracity, a self-detachment, and self-abnegating vigor or criticism that tend to spread out and must ultimately spread out to every other affair."

Such men as Roger Bacon and the subject of this paper belong to a long line of benefactors who constitute a "fifth estate".* They belong to a class who make higher civilization possible.

THE AWAKENING

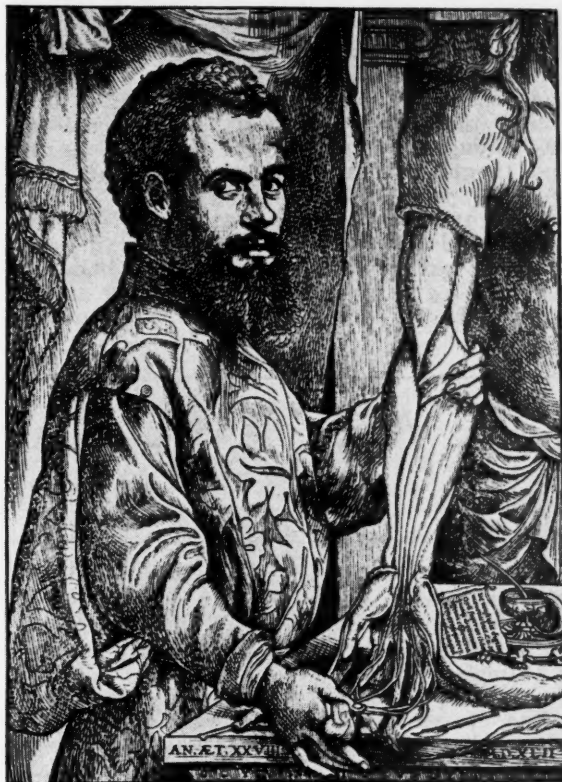
The renaissance of the fifteenth century, that transitional movement in Europe between the mediaeval and modern world, affected medicine and the sciences at a much later date than art and letters. It began with Petrarch and the humanists in the fourteenth century in Italy, where it became manifest in painting and sculpture. The movement was accelerated in the sixteenth century by the capture of Constantinople by the Turks in 1509, and the dispersion of its Greek scholars to the shores of Italy, which event opened anew the science and learning of the ancient world at an hour when the intellectual energy of middle ages had reached its ebb. It is significant to note that Florence, so long the abode of intellectual freedom and art, welcomed with extended arms the exiled Greek scholars. But we are more immediately concerned with the movement as it affected medicine and its allied studies. However much the new learning promoted literature and art, its influence was anything but favorable to the progress of science. Admiration for the literature of ancient Greece, while it engendered a love for poetry, history and philosophy, had a similar effect in promoting a spirit of veneration for the writings of Hippocrates, Ptolemy and Galen, so that it became almost an act of impiety to question their teachings. It was not until the sixteenth century, as we shall see, that the spell of ancient authority was broken by the direct appeal to nature. It was not until then that the anatomist determined at all cost to examine the human body for himself and to be guided by his own observations.

THE EVOLUTION OF ANATOMY

As anatomy precedes physiology, in order to adequately appreciate the work of Harvey, a brief account of the progress in anatomy is necessary. The great anatomist of antiquity was Galen (130-200 A. D.), who lived for a time at Pergamos and for five years at Rome. He was a man of talent both as observer and writer. His writings embodied all the important discoveries of his predecessors, enriched and much enlarged by the results of his own originality. His observations, however, were made upon the lower animals on the faith of which he expounded the human subject. Huxley declares that "No one can read Galen's works without being impressed

* The "fifth" estate. Napoleon referred to the press as the fourth estate. The other three being the Sovereign, the Lords and the Commons. Napoleon is reported to have said that he preferred to have all the armies of Europe arrayed against him than one hostile newspaper. A writer in the Atlantic Monthly some time ago described what he called the "fifth" estate which included all those scientists, artists, philosophers and others who had made contributions of permanent value to human society. He estimated this "fifth" estate to comprise not more than one hundred thousand persons.

with the marvelous extent and diversity of his knowledge and by his clear grasp of those experimental methods by which alone physiology can be advanced." Rome was the field of his greatest triumph as physician. So great was his influence that for more than a thousand years his works held undisputed sway over anatomical teaching until a greater name arose in the person of Vesalius.



The Woodcut Portrait of ANDREAS VESALIUS in the First Edition of the *FABRICA*, 1543

Drawn by Jan Stephan van Calcar
(Reproduction from the copy in the Bibliotheque Royale de Belgique)

MADE ANATOMY WORKING SCIENCE

Vesalius (1514-1564), born in Brussels, inherited from an ancestry of learned men a keen appetite for scientific learning. He was the most commanding figure in European medicine after Galen and before Harvey. Vesalius was a pupil of Sylvius, a bigoted follower of Galen. The picture of Vesalius is well known standing by a table demonstrating the muscles of a partly dissected arm. His bearded face denotes a firm, independent character. His great service to anatomy consisted in making it a working science in which he made dissecting a respectable method of teaching. The great importance of his work lies also in the fact that he overthrew adherence to authority as a means of arriving at truth and employed instead, observation and reason. Slavish obedience to authority characterized the thought and methods of the dark ages. This was in accord with the ecclesiastical influence dominant during this long period. It was the influence of the theologian, which has, unfortunately, survived to our own day. The Scopes trial at Dayton, Tennessee, is too fresh in our memory to dispose us to feel we are in the present day and

age entirely free from it. As the Scriptures were an infallible guide to spiritual truth, so the works of Galen were unfailing guides to scientific truth. Vesalius was bitterly opposed not only by the ecclesiastic forces, but by medical men of his time. The theologians opposed him because, among other things, he differed from the widely accepted dogma that man should have one less rib on one side because, according to Scripture, Eve was formed from one of Adam's ribs. Vesalius was willing, however, to leave the matter with the theologians, since it did not appear to him to be an anatomical question. Sir Michael Foster writes that Vesalius "Tried to do what others had done before him—he tried to believe Galen rather than his own eyes, but his eyes were too strong for him; and he cast Galen aside and taught only what he could see and what he could make his students see, too. Thus he brought into anatomy the new spirit of the time, and especially the young men of the time answered with a new voice." It is said that students flocked to his lectures, his audience amounting to some five hundred. The history of anatomy

precedes that of physiology as a logical sequence. The work of Vesalius placed the structure of the human body in a new light.

THE WORK OF HARVEY

William Harvey was the first man to study and proclaim the function of the structures which Vesalius had in such a masterly manner demonstrated.

"The work of Harvey," says Locy,* "was complementary to that of Vesalius and we may safely say that, taken together, the work of these two men laid the foundations of the modern method of investigating nature. . . . In what sense the observations of the two men were complimentary will be better understood when we remember that there are two aspects in which living organisms should always be considered in biological studies; the first, the structure, and then the use that the structures subserve."

* Biology and Its Makers, by Locy.

(TO BE CONTINUED)

NEWS AND ANNOUNCEMENTS

Thereby Forming Historical Records

Doctors R. A. Burke and W. S. Picotte have opened up a fifteen-bed hospital, to be known as the Twin City Hospital, at Negaumee, upper peninsula, Mich.

The November meeting of the Detroit Otolaryngological Society was held on Wednesday, the 21st. Dr. George McKenzie was the speaker of the evening. In December, Dr. W. V. Mullen of the Cleveland clinic is to read a paper before the society. It is further announced that the society will go to Toronto in January, 1929, as the guest of Dr. Perry Goldsmith. All of the meetings will be held in the Toronto general hospital, directed by Dr. Goldsmith and his associates.

Dr. George F. Buchan, Medical Officer of Health, Willesden, Urban District Council, England, spent November 16 and 17 in Detroit. Dr. Buchan is a well known public health official in England and is President of the Society of Medical Officers of Health of Great Britain. He is traveling through this country as a guest of the Commonwealth Fund of New York City. Dr. Buchan is also President of the Health and Clenaliness Council of Great Britain.

Colonel J. D. Graham, Public Health Commissioner with the Government at India, was in Detroit as a guest of the Health Department from November 25-28, 1928. Colonel Graham was accompanied by Dr. Wells of the Rockefeller Foundation, under whose auspices, he is studying methods in public health and the correlation between teaching institutions and public health departments in various communities. Colonel Graham is the representative of India on the Health Committee of the League of Nations and Office Internationale, Paris. He is also chairman of the League of Nations Singapore Advisory Committee. He is also secretary of the Governing Body

of the Indian Research Fund Association, an important factor in Calcutta School of Tropical Medicine and Medical Research in India.

It is the custom of the Wayne County Medical Society, Detroit, Mich., to hold an entertainment on the fifth Tuesday of those months in which there are five Tuesdays. Accordingly, the evening of October 30th was devoted to a rather novel, but none the less delightfully entertaining program. The entertainment committee, under Chairman Dr. B. H. Larsson, made the event an historical evening when the members were treated to an interesting address on the "Life and Work of William Harvey," by Dr. Frederick Collar, Professor of Surgery of the University of Michigan. Dr. Collar's address was illustrated by numerous lantern slides. After the address, a film, shown for the first time on this side of the Atlantic, was presented, giving in detail Harvey's discovery of the circulation of the blood. The film began with the well known portrait of Harvey, in which the hands are in evidence. After showing the portrait, the body and face receded from the picture, leaving only the hands with the seventeenth century sleeves and cuffs turning the pages of Galen and other savants presenting results up to the time of Harvey. Then followed Harvey's experimentation by which he established knowledge of the circulation of the blood, thereby ushering in the era of modern medicine. The film was imported from England and presented to the society through the courtesy of the secretary of the American Medical Association.

AN ITALIAN COMMISSION VISITS THE DETROIT DEPARTMENT OF HEALTH

The Rockefeller Foundation is sending a commission of health authorities from Italy on a two months' tour of health organizations in the

United States. The commission is accompanied by Dr. L. W. Hackett, who is the representative of the Rockefeller Foundation in Italy.

They visited the Detroit Health Department on October 26th and 27th, and were particularly interested in the anti-tuberculosis work in Detroit. On October 28th they visited the State Department of Health at Lansing.

The commission consists of Professor Pietro Canalis, Professor of Hygiene at the University of Genoa, also a member of the superior council of the National Health Department; Dr. Alberto Missiroli, who is a provincial medical officer; Dr. Gino Vivaldi, bacteriologist of the National Health Department, and Mr. Giulio Zoppi, architect and engineer of the National Health Department.

On Friday evening, October 26, Dr. Henry F. Vaughan, Detroit Commissioner of Health, entertained the commission at the Detroit Athletic Club. Also attending this dinner were several representatives from the local Italian medical group, officers of the Wayne County Medical Society, and other representatives of the Detroit Department of Health.

CHILDREN'S HEART CLINIC

The third annual heart conference of the heart committee of the Tuberculosis and Health Society was held Friday, October 26th, in the auditorium of the Detroit Community Fund building. It was held jointly under the auspices of the committee and the heart committee of the Wayne County Medical Society.

The conference was designed for lay people, including nurses, social workers and other individuals who might be interested in the subject. The first conference of this nature was held three years ago. It was such a success that it has been held annually since that time.

This year the program was devoted entirely to the subject of heart disease in children. The attendance was about 200. This included not only nurses and welfare workers from different organizations, but a number of private individuals who had seen announcements of it in the papers. According to reports which have been received from individuals who attended, the program offered was very instructive and met the needs for which it was designed.

The program was as follows: "The Child's Heart and Its Diseases," by Charles A. Wilson, M. D., discussed by D. S. Brachman, M. D. "The Prevention of Rheumatic Fever and the Care of the Child Who Has It," by Janney Smith, M. D., discussed by Norman E. Clarke, M. D. "In the Scheme of Treatment of the Cardiac Child What Is the Place of (1) The Doctor?" by Ivor E. Reed, M. D.; (2) "The Parent?" by E. D. Spalding, M. D.; (3) "The Nurse or Social Worker?" by Miss Alice Walker, and (4), "The School?" by A. E. Olsen, M. D.

The program was arranged by Dr. Douglas Donald, chairman of the heart committee of the Tuberculosis and Health Society. Dr. Walter J. Wilson, a member of the board of the society, was the presiding officer.

The heart committee of the Wayne County Medical Society, Detroit, is composed of the following people: Dr. Douglas Donald, chairman;

NOTE—In order to make this department interesting the co-operation of every member of the M. S. M. S. is solicited. Kindly send any item that may be of general interest. If it interests you it will interest others.—Editor.

Dr. E. D. Spalding, Dr. Norman E. Clarke, Dr. Walter J. Wilson, Dr. Charles A. Wilson, Mrs. George Hawley, Miss Alice Walker.

COMMUNICATIONS

Editor of The Journal:—

In reply to your inquiry of September 19th concerning the Physicians Health and Accident Insurance Company of Dallas, Texas, we desire to advise that this company is not authorized to do a health and accident insurance business in Michigan and we have no knowledge respecting them.

Any insurance placed with the company in question by a resident of this state is not enforceable in the Michigan courts.

Very truly yours,

H. B. Corell,
Deputy Commissioner.

DEATHS

Dr. M. V. Meddaugh of Detroit, died at his home, October 11th, at the age of 73. He had practiced in Detroit for over forty years. He graduated from the University at Valparaiso, Ind., and taught for a number of years at the Ferris Institute, Big Rapids, before coming to Detroit. He is survived by his widow, one son, R. H. Meddaugh, and a grandson.

SERUM TREATMENT FOR INFANTILE PARALYSIS PRONOUNCED SUCCESSFUL

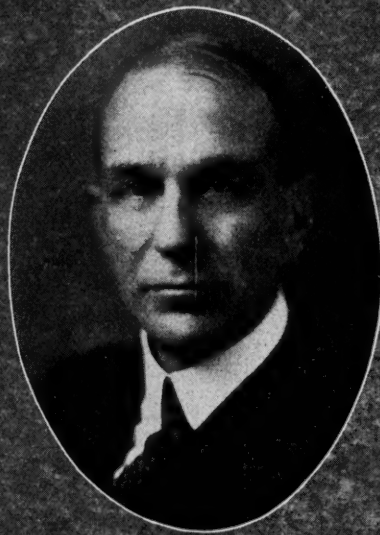
Serum treatment in the early stages of the illness provides a definite cure for infantile paralysis with prevention of permanent deformity and paralysis, Dr. Wardner D. Ayer of Syracuse College of Medicine declared at the assembly at Atlanta, Georgia of the Interstate Post-Graduate Medical Association of North America. Dr. Ayer cited a series of 129 patients seen and treated by him, of whom 96 made complete recoveries, 25 developed paralysis and eight died.

Of the eight who died, three received the serum too late and three did not receive enough, Dr. Ayer said, leaving only two cases as frank failures. Of the 25 that developed paralysis, ten were mild involvements that cleared entirely in six months. The serum used in the treatment was mainly that taken from the blood of patients who had recovered from the disease. In a few cases non-immune horse serum was used. It is given by hypodermic injection into the spinal canal.

The extreme importance of the early use of the serum was particularly emphasized by Dr. Ayer, who pointed out that there is a three-day period of illness before paralysis, and that the disease can be definitely determined in that period. The best results are obtained when treatment is started during the first 24 hours of the illness. The serum is practically useless after the paralytic stage has begun.—Science Service.



LOUIS J. HIRSCHMAN
PRESIDENT



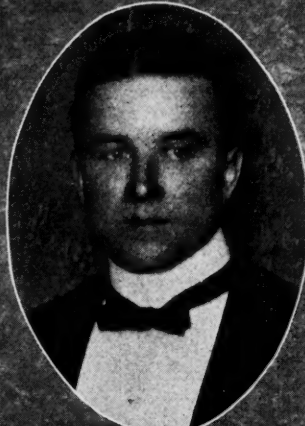
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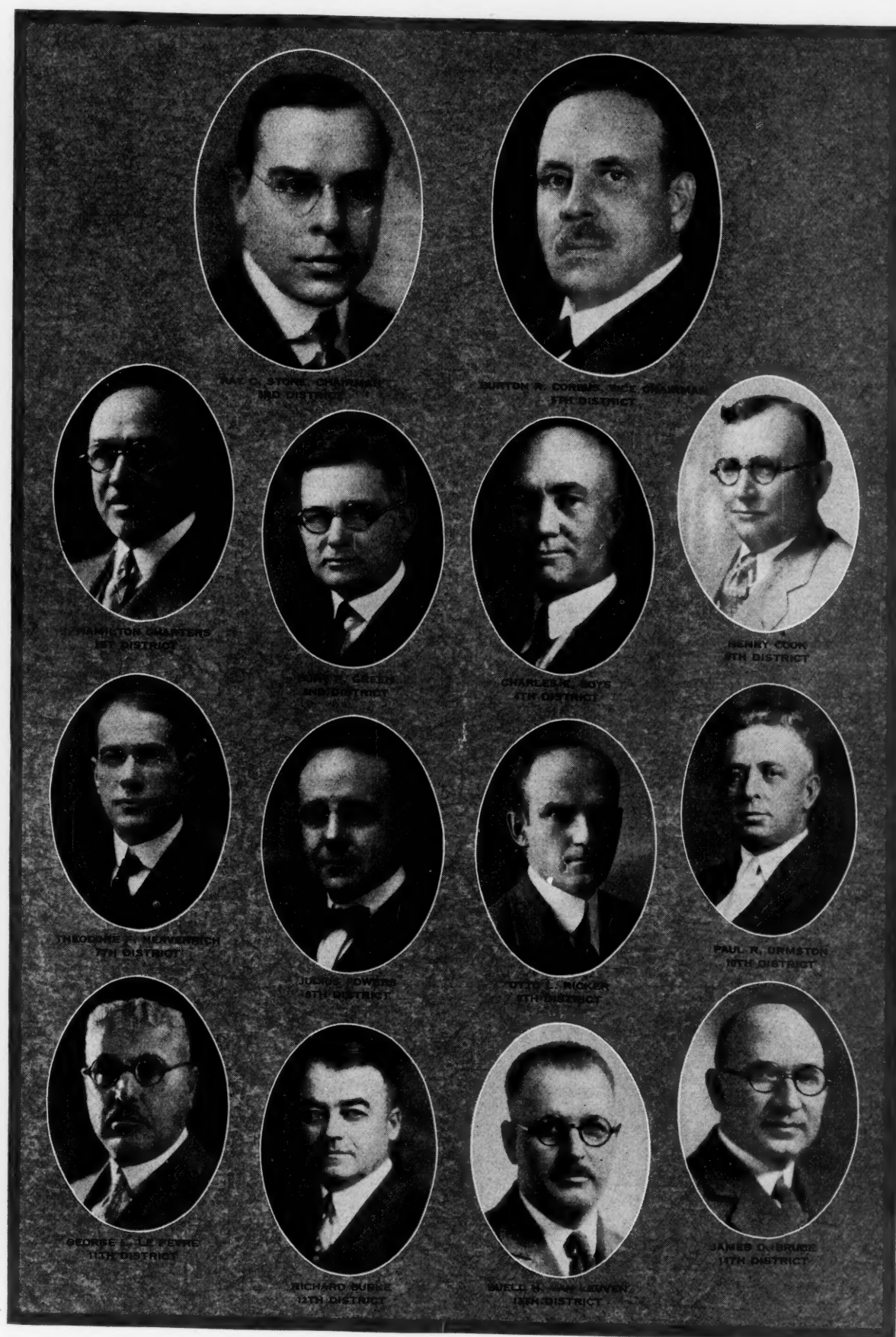
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TREASURER



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EDITOR

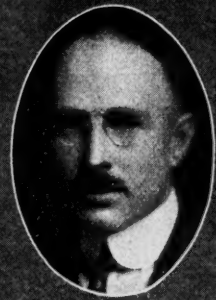


HENRY J. PYLE
SPEAKER





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MILTON H. SATER, SECRETARY

GENERAL MEDICINE



FREDERICK A. COLLIER, CHAIRMAN



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GARY B. SMITH, SECRETARY

OPHTHALMOLOGY AND OTOLARYNGOLOGY



WILLIAM B. ROSS, CHAIRMAN



PEDIATRICS

COUNTY SOCIETY ACTIVITY

Revealing Achievements and Recording Service

EDITOR: Frederick C. Warnshuis, M. D.

Secretary Michigan State Medical Society

EXECUTIVE COMMITTEE MEETING

The October meeting of the Executive Committee was held in Grand Rapids on October 30, 1928, at 6:00 p. m. with the following present:

Chairman, R. C. Stone; J. D. Bruce, George Le Fevre, B. R. Corbus; president, L. J. Hirschman; secretary, F. C. Warnshuis.

1. Dr. Corbus recited the details surrounding his attendance at the conference on Crippled Children that was held in Lansing on October 4.

2. The Secretary presented the following letter:

"At a meeting of the Michigan Crippled Children Commission in Lansing October 5th, it was unanimously voted to invite the State Medical Society through the Council to designate two men to act as advisers and ex-officio members of the Commission.

"I think you understand fully, Dr. Warnshuis, that the Commission itself has nothing to do with the appointment of its members, and that the only way that we can invite those whom we very much desire to assist is on the above basis.

"With this understanding, we shall be very glad to have your Council act upon this request and designate whomever you may choose. Upon receipt of this advice they will be notified of the time and place of each meeting of the Commission.

"Yours very truly,

"(Signed) H. E. Van de Walker,
"Chairman."

3. Upon motion of Dr. Bruce, supported by Dr. Le Fevre, the Chairman appointed Dr. Jackson of Kalamazoo as one of the advisory members of the Crippled Children Commission. The Secretary was instructed to write the members of the orthopedic staff of the Crippled Children Commission requesting them to nominate one of their members as one of the members of the Advisory Committee and that such nomination be confirmed when received by the Secretary.

4. The Secretary reported upon the plans that have been instituted for the legislative campaign. Upon motion of Dr. Le Fevre-Corbus, the Chairman appointed Dr. Bruce, President Hirschman and the Secretary as a committee to wait on Governor Green and to report the result of

such conference at the next meeting of the Executive Committee.

5. The Secretary suggested that the Annual Meeting of the Council be combined with the Annual Conference of County Secretaries in January and that the meeting place be the headquarters of the American Medical Association in Chicago. The Secretary is instructed to ascertain the sentiment of the Council upon such a plan, and following the recording of their decision to then ascertain how many of the County Secretaries would attend such a conference at the American Medical Association headquarters and report his findings at the next Executive Committee meeting.

6. President Hirschman submitted his appointments for the several committees of the Society. These were discussed and approved by the Executive Committee and will be announced through an official communication from the President.

7. President Hirschman outlined some of the ideals that he had in mind to achieve during his term of office and discussed these with the members of the Executive Committee, who concurred in his plans.

8. On recommendation of President Hirschman it was moved by Le Fevre-Corbus, that the First Vice-President of the Society be invited to attend the monthly sessions of the Executive Committee. This is done in conformity with the plan of tying up closer to our organization work the Vice-Presidents of our Society.

9. On motion it was moved that the next Executive Committee meeting be held in Detroit on Friday evening, November 23rd at 6:00 p. m.

The Executive Committee adjourned at 10:00 p. m.

F. C. Warnshuis, Secretary.

REMARKS MADE BY DR. B. R. CORBUS AT LANSING CONFERENCE ON THE CRIPPLED CHILDREN LEGISLATION

Mr. Chairman, Ladies and Gentlemen:

I am here with a committee* from the Michigan State Medical Society, to consider

* Committee Members—Dr. Richard R. Smith, Dr. A. J. Bower, Dr. John Jackson.

with you certain problems connected with the detailed working out of the Crippled Children Legislative Act. We are here in response to your request. The Michigan State Medical Society desires you to know that it is in complete sympathy with this movement. We would be glad to make it a part of our educational program.

For the successful carrying out of this act—one of the most valuable and important projects that the state is behind—you are primarily dependent upon a very high grade of medical service, a type of professional service which is a highly specialized division of surgery. You have recognized this when, soon after the formation of the Commission, you arranged for the appointment of a group of men to handle your clinics, and limited this group to doctors who were orthopedic specialists—doctors who give up their entire time to this specialized division of surgery. You further recognized that you were, to some considerable extent, dependent upon the medical profession as a whole when you came before the Council of the State Medical Society, and this opportunity to meet with you today, under the authority of the House of Delegates of the State Medical Society, resulted from this meeting.

Perhaps one of the motives which caused you to come before us were certain criticisms leveled at the Commission's activities by doctors throughout the state. It may be that some of these criticisms were deserved from the professional standpoint, but often criticisms are due to a misconception of facts, and often abuses come into the activities of such an organization as this, unintentionally, by reason of the failure of laymen to get the professional viewpoint. Perhaps we can help you to avoid the pitfalls which lead to friction.

I have said that you are dependent upon the highest grade of professional service. You are also dependent upon the good will of the doctors of the state. There is rarely a family with a crippled child which has not a family doctor. If this family doctor is in favor of the work you are doing, the child will get to your clinic, the advice given will be accepted, and the treatment will be likely to be carried out. He, above all others, is the one to help you to get these children into the clinic. We have no quarrel with the idea that you should survey and comb the state for the crippled child, whatever his social status may be and whatever his economical status may be. I bring this up because there has been some misconception on the part of some members of the Commission as to the at-

titude of the State Medical Society. I have gone over this with Dr. LaFerte today. He is in agreement with this statement. We look upon it as a part of the educational process. We realize, as you realize, that there are people who are quite able to pay a reasonable fee and who would be willing to pay that fee if they but knew that their child could be helped. I like the word "survey" better than I like "clinic". It does not carry the idea of charity, and I do not mean to suggest that these clinic or survey days should not be free. The advice which the orthopedist gives to the parent of this crippled child, is professional service of the highest grade. The men of means should not take advantage of this free service, yet we feel that an economic distinction cannot be made on these clinic days and the greatest benefit be obtained by the group of crippled children who so need help. It does not seem to us practical to make a distinction. However, when it comes to the treatment of the case, those persons able to pay, should pay. Primarily these clinics are meant for the indigent children on the one hand and for the education of the public on the other hand.

So far as consistent with the proper treatment of the child, that child should be left in the hands of his family doctor. These cases are apt to be long cases. It is to the interest of the child to have the family doctor interested, and you may be sure that he will be glad to be guided by the advice given by the more largely experienced specialist. One of the marked criticisms that we have heard from the doctors throughout the state is that they have been ignored; that their patients have been taken from them; that little or no consideration has been given them in any way. This is bad business for everyone.

May I suggest that when you are ready to put on your clinic or survey in a community, the secretary of the State Medical Society be notified. Let him get in contact with the County Medical Society. Let the members of the County Medical Society be ready to help you find these crippled children so that when the day comes the family doctor who is going to treat these children may have the benefit of the advice of the specialist. The backing of the County Medical Society, and co-operation with the members of the society in the community, will do more to make this a success than anything you can do, and this co-operation will in itself solve a lot of problems which are now disturbing you and disturbing us.

We approve thoroughly, as I said before,

of the appointment of these very high grade men that form your group of orthopedists. We feel that a great deal of responsibility should be placed upon that group. It might be that it would be wise to have that group enlarged by men who are not limiting their work to orthopedics, but who are, notwithstanding that fact, competent orthopedic men. There probably are a few such men in the state. The group now formed is best able to judge the competency of these men and should have the right of appointment.

From the group of orthopedists there has come some criticism as to the assignment of men to your clinics. It seems to us that here again the responsibility for the assignment of men from this group should be left to the group themselves. They might well be guided by a request coming from the County Medical Society for a special man, or by a request from the Commission when the Commission felt the advisability of sending some special man to a certain community. It is felt by this group that geographical location should be taken into consideration. For example, that Dr. Hodgen should not be sent to Mt. Clemens, and Dr. LaFerte to Cadillac. Not only is this a waste of time and an extra expense to the state, but the custom results in a certain unfairness to the men on your staff.

These doctors have been giving their services at a very distinct sacrifice. You, of course, realize that the doctor cannot spend a day or two away from his office without it being a sacrifice. If properly arranged there might be some return in reputation and some return in an occasional pay case, but as it has been handled the returns have been nil.

Linked with these criticisms comes another criticism from the orthopedic group and with it a suggestion for its remedy. This criticism refers to the hospital. Dr. LaFerte said that whereas it is possible, under the law, to assign these cases to any hospital which has a recognized orthopedic service, as a matter of fact the commitment papers read—"University of Michigan", and it is necessary that "University of Michigan" be scratched out by the Probate Judge or his clerk, and the name of another hospital inserted. Because of a misunderstanding of the law, or because of the easiness of the operation, or what not, as a matter of fact these commitment papers are not changed as frequently as they should be.

The orthopedic group feels that it is to the interest of the crippled child, as well as

to the interest of the doctor holding the clinic, that these cases on which operative work has been advised, should, so far as possible, follow him to the well recognized hospital to which he is attached. If there is a geographical assignment of these cases, the assigned hospital will probably be the nearest hospital to that particular location. That is, if Dr. Hodgen of Grand Rapids, is holding a clinic in Cadillac, it is a reasonable thing to think that these patients should go into Blodgett Hospital at Grand Rapids, thereby saving traveling expense.

Mr. Martin has called my attention to the difficulty you have been having in getting men to go to the Upper Peninsula. That is asking a great deal of your doctor. The loss of time is so great. You must remember that these men are not only giving charity to the crippled children under the Legislative Act, but that they have their own charity group to look after at home, a not inconsiderable part of every orthopedist's practice, and in this instance there is absolutely no possibility of return other than the satisfaction of doing a good work. I might say that the State Medical Society also finds it difficult to get men to go into the Upper Peninsula to put on our Post-Graduate Clinics.

I want you to know that the State Medical Society is behind you. We are as interested in this work as you are. We welcome the opportunity to help you. We know that the doctors of the state will be behind you, provided that the details of your work are cleared up in a way that is fair to everybody. Naturally we want the whole plan carried out in an ethical manner. The doctors of the state will want to help you find the crippled children of the state. They will want to help you to make them well if it can be done. We think that the state should help those who cannot help themselves. We think that the individual who can pay his way, should pay, and where the state cannot pay and the patient cannot pay, the doctors stand ready, as always, to give their services.

You are laymen on this Commission, and try as hard as you will, it is difficult sometimes to get the doctor's standpoint, and so it would seem to me that this work might be helped a great deal if you could have on your Board a representative or two of the medical profession, who might help you in the solving of problems which are essentially medical. It will keep you from putting your foot in it inadvertently, and will make, I am sure, for more power to the Commission.

TRAVEL EXPENSE DEDUCTIBLE FROM YOUR
INCOME TAX

Anent our comment and urge that you become a Fellow of the American Medical Association we cite in the subsequent quoted statement a very personal reason and demonstration. By its efforts the A. M. A. has obtained a ruling on your deductible expenses in making income tax returns. It has thus saved you dollars. This and similar national activities should inspire your support. Become a Fellow!

Traveling expenses incurred by physicians in attending meetings of medical associations are deductible in the computation of their federal income taxes. The Commissioner of Internal Revenue has erred in denying the deductibility of such expenses. The Board of Tax Appeals made this decision, October 2, in passing on the appeal of Dr. Cecil M. Jack of Decatur, Ill.¹ The decision becomes final at the expiration of six months from its promulgation unless an appeal is taken to the courts before that time. The commissioner did not appeal, however, when the Board of Tax Appeals rendered similar decisions against him in favor of ministers² and of chemists,³ in cases identical in every essential circumstance with the present case. In those decisions the commissioner officially acquiesced, without waiting for six months to expire, and there seems to be no reason why he should follow a different course now. Acquiescence seems more probable, too, since the board, in promulgating its decision in the present case, cited as precedents the very cases in which the commissioner had acquiesced, and repudiated as a precedent a decision of the board⁴ by which the commissioner undertook to justify his course. In that case, the board pointed out, it was necessary for the board to uphold the commissioner's denial of the physician's claim of the right to deduct traveling expenses, because the physician had not submitted proofs of the amounts expended. The only discoverable result that would follow an appeal by the commissioner is added expense and trouble to the taxpayer and to the government, an additional case to clog the court calendar, and, pending a decision by the court, many thousands of payments unlawfully exacted of physicians under the guise of taxation, to be added to the tens of thousands of such payments already exacted, all of

which the government may be called on to refund.

Since the Commissioner of Internal Revenue first denied to physicians their right to deduct traveling expenses, in 1922, the medical profession has paid probably as much as a half million dollars into the treasury, to avoid unlawful demands by the commissioner, the distraint of property, and suits. Subject to certain limitations on the time within which claims for refunds must be filed, all of this money will be repayable to the physician who paid it, if the courts are not called on within six months to reverse the decision of the Board of Tax Appeals and if on appeal they sustain the decision of the board.

Applications for refunds may be filed without waiting for any further official action in the case. Claims for refunds for the tax years 1924 and 1925 must be made within four years from the date of payment; for the tax years 1926 and 1927, within three years; and for the tax year 1928, within two years. Unfortunately, in many individual cases the amounts repayable are probably so small that the physician will not feel justified in going to the trouble and expense of making a claim, and in many cases it will be difficult at this late date to produce adequate legal proof of the exact amounts paid for railroad fares, Pullman accommodations, hotel accommodations, meals, and other allowable expenses. Applications for refunds must be made on the special form provided for that purpose,⁵ copies of which can be obtained from the local collector of internal revenue. A separate application must be made for each year for which a refund is claimed. Every application must show that it is based on the decision of the Board of Tax Appeals in *Jack v. Commissioner of Internal Revenue*.⁶ Applications must be filed with the collector of internal revenue within whose district the refundable money was paid.

5. Internal Revenue Service, Form 843.

6. Appeal of Cecil M. Jack, Docket numbers 14995 and 17662, promulgated, Oct. 2, 1928.

Annual Meeting—If you failed to read all the minutes of our Annual Meeting as published in the November issue, do so now. There is much of intense interest contained in that issue. We would appreciate your comments.

A. M. A. MEMBERSHIP-FELLOWSHIP

There is still evident considerable confusion relative to *Membership* and *Fellowship* in the American Medical Association. In our scheme of organization a member

1. Appeal of Cecil M. Jack, B. T. A. ; Docket numbers 14995 and 17662, decided, Oct. 2, 1928.

2. Appeal of Marion D. Shutter, 2 B. T. A. 23.

3. Appeal of Alexander Silverman, 6 B. T. A. 1328.

4. Appeal of Everett S. Lain, 3 B. T. A. 1157.

of the County Society becomes a member of the State Society and the American Medical Association but *not* a *Fellow* of the American Medical Association. Not one cent of his dues goes to the A. M. A.

To become a *Fellow* of the A. M. A., he must make *special* application and pay to the American Medical Association the annual dues of five dollars.

The American Medical Association is your parent national organization. Every member of the County and State Society *should* become a *Fellow* of the A. M. A. Why?

Because your parent national organization conserves your interests in national medical affairs. To enumerate these features in detail would require an entire issue of *The Journal*. We cite a few. The A. M. A. Council on Investigation exposes quacks, frauds and nostrums, and warns the public—to your interest. The Council on Medical Education and Hospitals inspires medical education standards, exposes pseudo-colleges, classifies hospitals and standards for interne service. The Bureau on Legal Medicine and Legislation conserves your interests in national legislative matters and national legal problems. During the past few months it has saved for doctors annual income tax reduction to pay your A. M. A. dues for five years. It also reduced your Harrison Registration tax \$2.00 per year by arguing your case before the Revenue Department. The Council on Pharmacy and Chemistry and the Council on Physio-Therapy annually accomplishes important work for your professional and financial benefit. And so

along every avenue, we can cite instance after instance wherein you personally benefit. By becoming a *Fellow* you will also receive *weekly* the *Journal of the A. M. A.*, than which there is no better medical journal. The *A. M. A. Journal* is in itself worth more than your A. M. A. dues.

We ask—do you not owe, in return for these and many other personal returns, your personal support? Are you willing to accept these benefits without demonstrating your appreciation? Are these not worth \$5.00 per year to you?

Our State Society has 3,366 members. Of our members but 2,073 are Fellows of the A. M. A. What about you who are one of the 1,293 members who fail to record appreciation for the work the A. M. A. does for you?

Some of our members pay \$5.00 per year for their subscription to the *Journal of the A. M. A.* but who are *not* Fellows because they have never applied for Fellowship. If you are one of this class we urge you to fill out an application—you will still continue to receive the A. M. A. Journal.

Michigan owes 100 per cent support to the American Medical Association. Will not you 1,293 members of our State Society who are *not* Fellows, enable us to register such support and loyalty by filling out the application blank on this page?

Send your application and check for \$5.00 today for 1929, to Dr. Olin West, Secretary, 535 N. Dearborn St., Chicago, Ill. Your return benefits will be one hundred fold. Certainly you want to support our A. M. A. for what it does for you.

AMERICAN MEDICAL ASSOCIATION

Application for Fellowship

535 North Dearborn Street, CHICAGO

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I hereby make application for Fellowship in the AMERICAN MEDICAL ASSOCIATION and subscribe for THE JOURNAL for one year from date. I am a member in good standing of the County Medical Society, a component branch of the State Medical Association.

N.B.—Five dollars is deposited with this application, of which amount, should I be granted the Fellowship applied for, \$4.00 is to be credited to my subscription for THE JOURNAL. The Fellowship for which this application is made is to be subject to the Constitution and By-Laws of the American Medical Association.

Signed.....
(Name in full)

Street..... City.....

County..... State.....

Qualifications for Fellowship—The members in good standing of the constituent state and territorial medical associations of the American Medical Association shall be members.

Any (1) member of this Association, who on the prescribed form, (2) shall apply for Fellowship and subscribe for *The Journal*, (3) paying the annual dues for the current year, shall be a Fellow.

COMMITTEE APPOINTMENTS

President Hirschman announces the following committee appointments for the coming year. It is the earnest desire of our President that these committees become aggressively active. Each committee is charged with a definite duty. To discharge that duty is the personal obligation of each committeeman.

Joint Committee on Public Health Education—

Angus McLean, Detroit.
L. F. Foster, Bay City.
J. B. Jackson, Kalamazoo.
F. C. Warnshuis, Grand Rapids.
A. P. Biddle, Detroit.

Medical Education—

A. P. Biddle, Chairman, Detroit.
Hugh Cabot, Ann Arbor.
W. H. MacCracken, Detroit.

Hospital Survey—

C. M. Williams, Chairman, Alpena.
C. E. Boys, Kalamazoo.
A. M. Campbell, Grand Rapids.
Warren L. Babcock, Detroit.
H. A. Haynes, Ann Arbor.

Public Health—

J. H. Charters, Chairman, Detroit.
W. E. Ellet, Benton Harbor.
C. S. Gorsline, Battle Creek.
J. Wessinger, Ann Arbor.

Legislation and Public Policy—

William E. McNamara, Chairman, Lansing.
Frank Kelly, Detroit.
Arthur M. Hume, Owosso.
W. McCutcheon, Cassopolis.
Earl Carr, Lansing.

Tuberculosis—

B. A. Shepard, Chairman, Kalamazoo.
E. N. Nesbitt, Grand Rapids.
B. H. Douglas, Northville.
E. J. O'Brien, Detroit.
F. H. Bartlett, Muskegon.

Venereal Prophylaxis—

W. F. Martin, Chairman, Battle Creek.
H. W. Plaggemeyer, Detroit.
U. J. Wile, Ann Arbor.

Civic and Industrial Relations—

Harrison S. Collisi, Chairman, Grand Rapids.
L. A. Farnham, Pontiac.
C. D. Munro, Jackson.
L. O. Gieb, Detroit.
H. M. Joy, Calumet.
F. G. Swartz, Traverse City.
R. H. Nichols, Holland.
W. Den Bleyker, Kalamazoo.
H. F. Dibble, Detroit.
G. M. Curry, Flint.

Medical History—

C. B. Burr, Chairman, Flint.
J. H. Dempster, Detroit.
W. J. Kay, Lapeer.
W. H. Sawyer, Hillsdale.
Walter H. Winchester, Flint.

ORGANIZATION AND CONDUCTING OF CLINICS FOR CRIPPLED CHILDREN

For the past ten years the Rotary Clubs of Michigan have taken an active interest in the problem of the crippled child. Sometimes a club and sometimes individual members of the club write to the Michigan Crippled Children's Commission asking for a clinic for the crippled children of their county.

Since the organization of the Michigan Society for Crippled Children, a philanthropic group of people interested in the betterment of the children, and in consequence, the betterment of their community, thirty-three county chapters of this society have been formed. These county chapter people write us for information regarding clinics.

The Commission is powerless to organize the clinics required by law without the aid of much local assistance. These two groups form the basis of local activities.

Their first instructions call for consultations with the local doctors and nurses. This is done because we want the local doctors, particularly, to feel that our services are for their assistance and are not an interference. It has sometimes happened that local people have not realized the necessity for interviewing the local doctors and obtaining their support before making any further moves. This is regrettable and not at all the policy of the Commission. The law requires a clinic annually in each of the several counties or groups of counties in the state. This is not humanly possible with our present staff of workers and the prevailing unorganized state of affairs.

To date 23 clinics have been held and 1,087 children examined. This means an enormous amount of work and the Commission endeavors to do all things possible for the good of these children. The matter of follow-up work by the two registered nurses on the Commission staff will be handled in connection with the hospitalization article which will appear at a later date.

It is the desire of the Commission that local doctors feel that clinics for crippled children will be of welcome assistance to their communities. In many cities throughout the state the county branch of the State Medical Society has backed the movement with a very fine spirit of co-operation. Local doctors have taken turns at conducting examinations simultaneously of cases which present themselves on the day of the clinic and which are not strictly orthopedic cases. Doctors are wel-

come to bring their patients for consultation with the orthopedic specialist. Lunches and dinners have been given honoring the visiting orthopedic surgeon. Every effort is made to demonstrate to the doctors living in the community that the sole aim of the Michigan Crippled Children's Commission is to locate the crippled children of the state and prevail upon them to avail themselves of the great advantages of modern medical science and surgery.

The question is often asked as to the manner in which the list of examining orthopedic surgeons was compiled. At the time the Commission opened its offices, November 1, 1927, the Michigan Society for Crippled Children gave access to its files and records. Among these was a list of eight surgeons as used by them in past years. The Commission submitted this list of names to the surgeons themselves, together with an inquiry as to the names of any other surgeons who specialize in orthopedic. Two more names were immediately added to the list by them. Later another name was added and today the list contains the names of eleven orthopedic specialists. The name of any surgeon specializing in orthopedics, presented by a member of the group, vouched for by three other members of the group, and then voted upon, will be accepted for this list and recognized by the Commission as a clinic examiner.

The people living in a community are given the list of names of surgeons. They indicate a first and a second choice for the examiner at the clinic in their county. These men are invited to examine at the clinic. They serve without compensation but are given their actual traveling expenses.

The clinics are purely diagnostic. The surgeon recommends what, if anything, in his opinion, can be done for the child. The stenographic notes are typed in the office following the clinic. They show the history of the case, any treatment received, the diagnosis and recommendations of the examining surgeon. The original copy of this report is filed in the Commission office, one copy is given to the examining surgeon, one to the county school commissioner or city superintendent of schools as provided by the law, and another is given to the county nurse or local person in charge of the clinic.

The information given by parents at the clinic constitutes our basis upon which to proceed. Often we find that they have no family physician, upon investigation

we find that the doctor named by them has been called recently for some slight disorder but has never been called upon to treat an orthopedic condition which has continued over a period of years. Often a doctor is named by the family as their family physician and it develops later that he has not been called upon for several years and so is not at all familiar with the present ailment. We state this in order to show that records, if we attempted to send them to the so-called family physician, would frequently be meaningless to them because of the fact that they are not in a position to know the family due to not having been called into consultation. In a great many instances, where we are certain as to the connection of the local physician with the case, we have been pleased to send the reports directly to him and wish to do so in every case. The records are open to all, copies will be furnished to those desiring them, but we do not like to send them out promiscuously unless certain that the physician desires to have a copy. It has seemed better to us to ask the follow-up worker to interview the family after the clinic, ascertain in a more leisurely manner than is possible during the rush of a clinic just who has been attending the child, and then pay a personal call on such physician asking his advice as to the follow-out of the recommendations made by the examining surgeon.

Esther Martin, Secretary-Treasurer.

Annual Dues—With the close of the year your annual dues become payable. Please remit promptly to your County Secretary.

Pictures—This issue contains the pictures of our officers. They are printed for historical record as well as to more intimately acquaint you with fellow members in whom you have reposed trust.

Greetings—Our cordial Holiday Greetings are extended to each member. Our wish is for a full measure of happiness and well-being. May the new year bring to you an abundance of joyous hours and prosperous days.

Council and Secretary's Conference—Plans are being made to hold the Mid-Winter Session of the Council and the Annual Conference of County Secretaries at the American Medical Association Headquarters in Chicago. The tentative dates are January 16 and 17. It is felt that such a meeting place will afford our members

an insight as to the scope and extent of work our national organization is accomplishing for the individual doctor. Full details will be announced in the January Journal.

Proselyting—That is a gentler caption than the real word that should apply * * * We refer to vicarious words and actions employed by a few in every community who stoop to inducing patients to desert their customary medical attendant. Some do it by "grand standing", others by comparative braggadocio, and others by baser methods, actual or suggestive. The one end being to acquire the patient and then to farm them for all they can obtain in money.

The scenes may be varied; the club, golf course, party, bridge game or social channels. But the most flagrant location is the hospital corridor or ward—especially the hospital ward containing patients of several attending men. The crooked culprit goes to the bedside of his own patient and in mannerism, loud voiced self laudation and self deification tells or recites incidents of his wonderful cases and cures alleged. This to impress the patients of other doctors in adjacent beds. A daily repetition of such practices week in and week out results in a fair batting average during the year of stolen cases—for there are always a few who fall.

No words are ample to convey the contempt such a crook merits. The wonder is that he is permitted to pursue such a course in our hospitals. He merits dismissal as well as denial of all hospital privileges—a veritable ex-communication. Kick him out and clean your hospital of the proselyter—the crook within our ranks.

GRATIOT-ISABELLA-CLARE COUNTY

The G. I. C. held their November meeting in the Park House, St. Louis, Thursday, November 8th. Seventeen had supper together at 6:30, after which President Barstow introduced Dr. Willard Smith from the Medical Department of the University Hospital, who read a paper on "Rheumatoid Disease." The doctor covered the subject thoroughly in his paper and then explained different ways they have been treating those afflicted with this disease in the University Hospital.

—E. M. Highfield, Secretary.

SHIAWASSEE COUNTY

Shiawassee County Medical Society began its November meeting with a noon luncheon at which thirty-one doctors sat down together. After a satisfying repast the Society adjourned to the auditorium of the nurses' residence of Memorial Hospital where they were addressed by Dr. Har-

ris Sturgis of Ann Arbor on "Some Phases of Heart Disease"; Dr. Keeler, also of Ann Arbor on "Acute Affections of the Throat"; Dr. Chas. S. Kennedy of Detroit on "Fractures of the Skull and Spine", and Dr. Clyde Hasley of Grace Hospital, Detroit, on "Eczema and Other Skin Diseases."

Dr. Kennedy and Dr. Hasley illustrated their subjects with the stereopticon, and all four speakers were very entertaining and instructive.

—W. E. Ward, Secretary.

LIVINGSTON COUNTY

The first regular meeting of the Livingston County Medical Society was held in McPherson Hospital at Howell, October 30th.

Dr. W. J. Cassidy of Detroit was present and gave an interesting clinic; in the afternoon operating two thyroid cases under local anaesthetic for the benefit of the members.

The doctors were guests of the hospital at a very pleasing dinner after which Dr. Cassidy gave an illustrated lecture on "Surgical Thyroids". Discussion by Dr. Claude Sigler and Dr. Hollis Sigler followed.

The character of the clinic and the attendance were very good; indicating a very successful life for the Society in this county.

The next monthly meeting will be held at the State Sanatorium for Tuberculosis where the doctors will be the guests of Dr. Huntley and attend a clinic conducted by Dr. John Alexander of Ann Arbor.

—L. A. Davis, Secretary.

MUSKEGON COUNTY

The Muskegon County Medical Society met for dinner at the Occidental Hotel at 7 p. m., October 26. Twenty-six members were present. President Bloom called the meeting to order at 8 p. m. The minutes of the previous meeting were read and approved.

A communication from the Y. M. C. A. was read asking the County Medical Society to provide speakers for health lectures during the coming winter.

A communication was read from the State Society Secretary asking for the appointment of a legislative committee. The appointment of the legislative committee was deferred by the president for later consideration.

A communication was read from the Hackley Hospital Free Bed Auxiliary referring to the Society the question of the best means of using available money for free beds. The Society moved to inform the Auxiliary that the Society believes that a chairman should be appointed by the Auxiliary to whom physicians desiring free beds for patients could apply directly.

Dr. O. P. Kimball, of Cleveland, Ohio, gave a very instructive and interesting talk, illustrated with lantern slides, on his work in the prevention of goitre among school children. The meeting adjourned at 11 p. m.

Louis LeFevre, Secretary.

JACKSON COUNTY

The Post-Graduate Conference held in Jackson October 24th at the Hotel Hayes was a distinct success. The program was as follows:

9:30 a. m.—"Common Rectal Conditions," by Edward G. Martin, M. D., Detroit.

10:00 a. m.—"Correction of Deformities," by Alfred D. LaFerte, M. D., Detroit.

10:30 a. m.—“Focal Infections,” by Edward G. Martin, M. D., Detroit.

11:00 a. m.—“Diagnosis of Glaucoma,” by A. E. Bulson, M. D., Fort Wayne.

11:30 a. m.—“Blood Examinations,” by H. E. Cope, M. D., Detroit.

12:15 p. m.—Luncheon.

1:30 p. m.—“Arthritis,” by Philip Kruscher, M. D., Chicago.

2:00 p. m.—“Gynecology,” by Channing W. Barrett, M. D., Chicago.

2:30 p. m.—“Bacterial Endocarditis,” by Joseph A. Capps, M. D., Chicago.

3:00 p. m.—“Drainage of Accessory Sinuses,” by A. E. Bulson, M. D., Fort Wayne.

3:30 p. m.—“Gynecology,” by Channing W. Barrett, M. D., Chicago.

4:00 p. m.—“Backache,” by Philip Kruscher, M. D., Chicago.

4:30 p. m.—“Pain in Pericarditis,” by Joseph A. Capps, M. D., Chicago.

7:00 p. m.—Dinner. Address, “Relationship of the Doctor to Law and His Patient,” by Herbert V. Barbour, LL.D., Detroit.

In the evening a banquet was held in the Georgian Room. The speaker, Mr. Herbert Barbour of Detroit gave a very interesting discussion on the “Malpractice Phase of Medicine,” citing much of the humorous side of it.

Total attendance at the Clinic was about 125.

—Philip Riley, Secretary.

BERRIEN COUNTY

The Berrien County Medical Society held their October meeting at the Four Flags hotel in Niles.

An excellent turkey dinner was served in one of the private dining rooms to 30 members. The table was decorated for the Hallowe'en season.

At the business meeting following the dinner the application of Dr. W. O. Jennings of Benton Harbor was received back from the membership committee and he was voted into the society.

The letter from the secretary of the state society in regards to the legislative committee was read.

The delegates' report of the state meeting in Detroit was read by the secretary.

A vote of appreciation and thanks was passed by the society to the chambers of commerce of Benton Harbor and St. Joseph for their interest and work in aiding the Berrien County Society in their attempt to obtain the 1929 state meeting; also to the various luncheon clubs for their telegrams of joint invitation.

The society then listened to a wonderful paper on the heart by Dr. M. A. Mortensen of the Battle Creek Sanitarium.

Dr. Mortensen's paper dealt particularly with the differential diagnosis of coronary sclerosis and coronary thrombosis.

His outline method, by means of slides and his case history illustrations made his subject most interesting and specific in description, so that one was bound to maintain interest and remember the salient points of differential diagnosis in the subject under discussion.

In the discussion that followed other points of interest apart from the paper, but allied, such as hypertension, dietetic and medical treatment, were brought up and ably answered by Dr. Mortensen.

Such papers are of real value to the general

practitioner as well as the specialist, and the Berrien Society is deeply indebted to Dr. Mortensen for the clarity of his delivery and the sacrifice of time necessary to be with us.

The November meeting will be held in Benton Harbor on the 21st and will be addressed by Dr. Ferris Smith of Grand Rapids. The dental society have been invited as guests for this meeting.

W. C. Ellet, Secretary.

GENESEE COUNTY

On Wednesday evening, October 24, the Merliss Brown Auditorium of Hurley Hospital was officially dedicated and turned over to the Genesee County Medical Society. The auditorium is built as an integral part of the hospital. Architecturally it conforms to the regular theater style with a suitable stage for speakers and a seating capacity of three hundred. The acoustics are exceptionally good. Very infrequently does one find such perfect ventilation, the air remaining clear and fresh. The decorations are subdued and in excellent taste. The side walls are paneled in antique oak for a height of about eight feet, above this the walls are stippled in a warm brown, overhead the ceiling is beamed and richly decorated with a conventional design done in blue, red and gold. The lighting fixtures are very decorative and unique, in that ample light has been provided without glare. Comfortable upholstered seats have been purchased with funds raised by voluntary subscriptions from members of the County Medical Society.

An auditorium such as this constituting a unit of a city hospital is rather unique, and is the only one of its kind in the state. Visitors during the recent Post-Graduate conference at Flint were enthusiastic in their praises and Genesee County Medical Society may be very proud indeed of its new acquisition.

In accepting this gift from the Board of Hospital Managers and through them the citizens of Flint, the Society assumes a moral obligation to make use of this splendid equipment in disseminating medical knowledge. The taxpayers will, we hope, quite fittingly benefit by receiving improved medical care.

J. P. Pengelly as representative of the Citizens of Flint introduced Merliss Brown, member of the Board of Hospital Managers, after whom the auditorium was named. Mr. Brown in an appropriate manner turned the auditorium over to the Medical Society. Dr. W. H. Winchester in his usually charming way expressed the appreciation of the physicians to the board and the citizens of Flint. A short talk was given by Dr. F. C. Warnshuis of Grand Rapids on “Organized Medicine.” Following this Dr. J. D. Bruce of Ann Arbor told of the effort being made to place Post-Graduate education on a suitable footing in Michigan. Our honored guest, Dr. M. L. Harris of Chicago, President-elect of the A. M. A., spoke on, “Doctors, Patients and the Community.”

On October 24 and 25, at the New Merliss Brown Auditorium at Hurley Hospital at Flint was held a medical and surgical conference and clinic. Attendance each day was about one hundred. The subjects discussed were all very well received and appreciated by those in attendance. All felt that the bringing of these conferences is a big step forward in post-graduate work and as they are more appreciated by the medical profession, the attendance will increase. Men could spend much time and at greater expense visiting

clinics hundreds of miles away and not receive the valuable information given by these papers.

—Henry Cook, Secretary.

MONROE COUNTY

It was impossible to answer your letter regarding legislative committee before, because the society did not meet until last night. Committee is A. W. Karch, chairman; Jas. Humphrey, W. F. Acher, M. A. Hunter, all of Monroe.

There is at present no women's auxiliary. Probably the new president will take up the organization of one.

Officers elected at October 18 meeting are: President, T. M. Moll, Monroe; vice president, F. J. Heffernan, Carleton; secretary-treasurer, Florence Ames, Monroe; delegate, S. J. Rubley, Monroe; alternate, M. A. Hunter, Monroe.

There was an excellent address by Dr. Alpheus Jennings, Detroit, on "Diagnosis of hyperthyroidism, with Case Reports." Twenty-four members were in attendance. This was the thirty-third annual meeting of the society. Four of the original members were present: Geo. B. McCallum, Monroe; L. C. Knapp, Monroe; S. V. Dusseau, Erie, and E. S. Cornwell, LaSalle.

Dr. S. J. Rubley, of Monroe, is at present confined to St. Vincent's Hospital, Toledo, recovering from a hemorrhage due to duodenal ulcer. He is recovering nicely.

Florence Ames, Secretary.

GRAND TRAVERSE-LEELANAU COUNTY

Regular meeting of the Grand Traverse-Leelanau County Medical Society was held at the J. D. Munson Hospital October 2, 1928.

The following members were present: Drs. Rinear, Holdsworth, Gauntlett, Kyselka, Holliday, Swartz, Swanton, Minor, Brownson, Inch, Thirlby, Lawton, Murphy, Sladek; and as guests, Drs. Sheets, Berghoff and Minas.

Miss Mildred Compton, the city school nurse, gave a report on school health work covering a period of three years, and suggested that a committee be appointed with whom the school nurse can confer on any problems that are brought up. Sladek moved that such committee be appointed; seconded by Kyselka. Motion carried.

President Rinear appointed Drs. Lawton, Holdsworth and Thirlby on the above committee.

The report of Dr. E. F. Sladek, the delegate to the 108th annual meeting of our State Society, was read by him and was accepted. He divided his report into two parts; the work of the House of Delegates, and those scientific meetings which he attended.

A card from the family of Dr. O. E. Chase, who died recently in Chicago, gratefully acknowledging our expression of sympathy was read.

Dr. Frank Holdsworth concluded the evening with a very interesting talk, illustrated by lantern slides and projected photographs, on the history and the present condition of the Trudeau Sanitarium at Saranac Lake.

Special meeting, October 19, 1928.

Dr. L. M. Coulter of the State Department of Health presented a new plan for a County Health Unit in this region, and asked us to reconsider our previous action in this matter.

Dr. E. B. Minor made a motion that we en-

dorse a County Health Unit for Grand Traverse, Leelanau and Benzie counties. After considerable discussion he withdrew his motion because of lack of representation of all counties involved, and the fewness of members present.

A Clinical meeting of the Grand Traverse-Leelanau County Medical Society was held at the J. D. Munson Hospital on the afternoon and evening of October 30, 1928.

Program

2:30-3:00—Skin Clinic, Dr. Noah E. Aronstam, Detroit.

3:00-5:30—Surgical Clinic, Dr. Chas. B. Lakoff, Detroit.

6:00—Banquet at the Country Club.

7:30—Meeting of the Grand Traverse-Leelanau County Medical Society. "Tuberculides," illustrated by lantern slides, Dr. Noah E. Aronstam.

Dr. Aronstam presented 29 very instructive cases of various skin disorders, while Dr. Lakoff gave many practical surgical demonstrations.

Dr. Edwin Rinear presided over the evening meeting at which the following members were present: Drs. Rinear, Way, Minor, Inch, Gauntlett, Murphy, Holdsworth, Kernkamp, Brownson, Holliday, Kyselka, Smieseth, Sladek, and as guests, Drs. Aronstam, Lakoff, Freemont, Smith, Minas, Sheets and Berghoff.

Dr. Rinear appointed on the Legislative Committee, Doctors F. G. Swartz, Traverse City, chairman; E. F. Sladek, Traverse City, and Fred Murphy, Cedar. He also suggested that Mrs. F. P. Lawton be asked to form a Women's Auxiliary.

Dr. Aronstam then presented his paper "Tuberculides," which brought out considerable discussion.

The attempt to make this meeting one of a very practical nature was fully realized and the members of the local society and their guests voted it one of the best meetings we have had for years.

E. F. Sladek, Secretary.

KENT COUNTY

The summer activities of the Kent County Medical Society, consisting of picnics and golf tournaments, were brought to a close September 19, 1928, with the resumption of our regular schedule of scientific and business meetings. Following the business session, Dr. H. C. Robinson of Grand Rapids, Michigan, presented a paper entitled "Management of the Arthritic." This paper, well given, provoked an unusual amount of interesting discussion. The second paper of the evening, "The Interpretation of X-Ray Dental Films," by Dr. V. H. Eman, also of Grand Rapids, followed naturally the trend of thought of the first paper, and was excellently done.

The meeting of October 10, 1928, was featured by a paper given by Dr. Carl Snapp, entitled "The Problem of the Hard of Hearing." Dr. Snapp's splendid paper was followed by a very interesting and practical demonstration of the problem presented by pupils from the various classes from the school for the deaf.

At a special meeting held October 17, the Society listened to the plea of Mr. Gerald Wagner, consulting engineer for the city planning department, in the interest of the proposed new sewage disposal plant for Grand Rapids, and the proposed plan for its operation as a utility.

The scientific activities of the autumnal season received great impetus October 23 and 24,

when a two-day post-graduate conference, arranged by the Michigan State Medical Society and the Department of Post-Graduate Medicine of the University of Michigan, was put on. The morning sessions, held at Blodgett, Butterworth and St. Mary's hospitals, consisted of Surgical and Medical clinics covering a wide range of subjects and given by members of the hospital staffs. These morning sessions, which were followed by complimentary luncheons at the hospitals, had an average attendance of some thirty-five to forty men, a considerable number of whom were attracted from the surrounding territory. The afternoon sessions, held at the Pantlind hotel, consisted of short twenty-minute talks by men of national prominence in their respective fields. Such men as M. A. Mortensen of Battle Creek, Frank Smithies of Chicago, B. C. Corbus of Chicago, J. P. Greenhill of Dr. De Lee's Clinic, Chicago, J. D. Bruce of Ann Arbor, Guy L. Kiefer of Lansing, T. E. Jones of Cleveland, Carl D. Camp of Ann Arbor and Wilbur E. Post of Chicago, having prominent places on the program. The papers of these men, intensely interesting, short and peppy, illustrated with moving pictures and lantern slides, were heard by members of the Medical Profession from all of Western Michigan, the attendance averaging 120 and testifying to the interest aroused, and the popularity of this type of Clinic. The evening of October 23 was given over to a subscription dinner at the Pantlind Hotel, one hundred and forty physicians being in attendance. Dr. B. R. Corbus of Grand Rapids, presiding as toastmaster, presented Dr. H. S. Collisi, President of the Kent County Medical Society, who briefly spoke on the activities of our local county organization, and expressed his gratitude and that of our society for being favored with such a splendid program. Dr. F. C. Warnshuis, having as his topic "Organizational Achievements," dwelt at length upon the progress made and being made by the State Society in providing post-graduate instruction, and outlined the incalculable advantages of membership in the county, state and parent organization, The American Medical Association. Dr. J. D. Bruce of Ann Arbor, in a very splendid paper, reviewed the whole problem of medical education, and outlined the advantages of the Preceptor System in the practical training of young medical students, a system which is now in vogue at the University of Wisconsin. Dr. M. L. Harris, President-elect of the American Medical Association, climaxed the evening's entertainment with a remarkable paper entitled, "Doctors, Patients and the Community." This paper, one that could only be written by a practitioner of many years' experience such as his, and only after much study and investigation, was well received.

The Kent County Medical Society is deeply indebted to the State Medical Society for this conference, and desires to express its appreciation through the columns of the Journal.

John M. Whalen, Secretary-Treasurer.

SAINT CLAIR COUNTY

A regular meeting of this Society was held at the Saint Clair Inn, Saint Clair, Michigan, Thursday, October 18, 1928.

Supper was served to ten members and four guests at 6:30 p. m. and a social hour followed. The meeting was called to order at 8:25 p. m. with the following members and guests present: Doctors Smith, Carney, McColl, Battley, Vro-

man, Webster, Waltz, Heavenrich, Bowden, Treadgold, LaRue and Kel. As guests: Doctors J. B. Porter of Port Huron, Kenneth Dick of Carsonville, P. E. Martin of Imlay City and Wadsworth Warren of Algonac.

Several communications were read by the secretary and after discussion the following committees were appointed by President Reginald Smith: Legislative committee, Doctors M. E. Vroman, D. J. McColl and F. V. Varney. Committee to organize a ladies' auxiliary, Mrs. A. J. MacKenzie, Mrs. Theo. Heavenrich and Mrs. D. J. McColl. The society then took action to postpone the arrangement of having Dr. George Waters address the next regular meeting on Tuberculosis and decided to hold an organization meeting of the Ladies' Auxiliary. The meeting to be held at the Saint Clair Inn, with dinner at 7 p. m. Music and dancing to follow the business meeting. Dr. Smith announced the committee in charge of arrangements for this meeting to be the president, secretary and Dr. F. V. Carney of Saint Clair.

The symposium on Eye, Ear, Nose, Throat and Chest conditions in their relation to infants and children was most interesting. Doctors Douglas Treadgold, Sinclair Battley, J. B. Porter, Wadsworth Warren and M. E. Vroman addressed the meeting in the order named. Following the papers, discussion by Doctors Carney, Dick, LaRue, Heavenrich, Bowden and Smith took place, with closing remarks by those who took part in the symposium. Meeting adjourned at 10:30 p. m.

A regular meeting of Saint Clair County Medical Society was held at the Saint Clair Inn, Saint Clair, Michigan, Thursday evening, November 1, 1928.

Dinner was served to the following guests and members: Mrs. Guy L. Kiefer, president of the Ladies' Auxiliary of the Michigan State Medical Society; Dr. and Mrs. Reginald Smith, Dr. and Mrs. Theo. Heavenrich, Dr. and Mrs. A. L. Callery, Dr. and Mrs. W. W. Ryerson, Dr. and Mrs. R. A. Windham, Dr. and Mrs. George Waters, Dr. and Mrs. W. D. Lane, Dr. and Mrs. D. J. McColl, Dr. and Mrs. F. V. Carney, Dr. and Mrs. G. M. Kesl and Dr. A. J. MacKenzie. Dr. and Mrs. E. C. Sites and Dr. Douglas Treadgold were present after dinner.

At the conclusion of dinner the president asked the guest of the evening to address the society. Mrs. Guy L. Kiefer made a short address in which she outlined the scope and purpose of the Ladies' Auxiliary of the State Medical Society. The ladies' organization promotes good feeling and fellowship among the wives of medical men and accomplishes much good for the profession by endorsement of many local activities particularly those of a charitable purpose. "At State and American Medical meetings the Auxiliary entertains and cares for the wives of physicians in attendance and allows them more freedom to attend the various meetings and clinics," said Mrs. Kiefer.

Following Mrs. Kiefer's talk the Society endorsed the formation of a Ladies' Auxiliary for Saint Clair county and appointed the following committee of ladies to act thereupon: Mrs. A. J. MacKenzie, Mrs. Theo. Heavenrich and Mrs. D. J. McColl. The ladies then adjourned to an adjoining room and held an informal meeting.

Dr. George Waters made a short talk upon a series of charts showing interesting data and X-ray pictures of childhood tuberculosis. These charts were sent the society for this use by the

Michigan Tuberculosis Association of Lansing. Unfortunately the data which should have been sent with the charts was not received and rather curtailed the discussion as well as the value of the charts to those in attendance. After Dr. Waters concluded his talk a general discussion of childhood and adult tuberculosis brought the program to a close.

The meeting adjourned at 10:15 p. m.

George M. Kesl, Secretary.

OAKLAND COUNTY

A meeting of the society will be held on Thursday evening, October 25, 1928, at the Board of Commerce, Pontiac. Dinner a la carte will be served at 6:30 p. m.

Doctors S. E. Galbraith and J. E. Church, Pontiac, will address the society on "The Roentgen Ray Findings in Tuberculosis." (Illustrated.)

At the last meeting the following physicians were elected to membership:

Dr. L. Warren Gatley, Pontiac, St. Louis University, 1925. Dr. L. Thomas O'Brien, Pontiac, University of Illinois, 1914. Dr. L. C. Sheffield, Pontiac, University of Chicago (Rush), 1925. Dr. Morrell M. Jones, Pontiac, Detroit College of Medicine and Surgery, 1915 (by transfer from Wayne County Medical Society).

The Oakland County Dental Society entertained the members of our society at golf and dinner at Wise's golf course on Wednesday, September 26. Twenty-four dentists and thirty-five physicians enjoyed the afternoon and evening program. The "dents" produced the best golfer in the person of Dr. Hannan Hubbard, who turned in a score of 80.

In compliance with Chapter 8 governing amendments to the constitution and by-laws of the society, notice was served at the last meeting that at the October meeting there would be presented an amendment to Chapter 6 of the by-laws for the purpose of increasing the annual dues and an amendment to Chapter 1, Section 2, relative to the method of electing members.

The members of the Oakland County Bar Association were our hosts at golf and dinner on Wednesday, October 3, at the Aviation Country Club, Green Lake. Ralph T. Keeling had the low score for the lawyers with a 91, and Dr. L. A.

Farnham carried off the honors among the doctors with a 93. Following dinner and the singing of the ode to the more or less absent barristers, "Jimmy" Lynch was pulled out of a golf bag and induced to act as toastmaster. The toasts and roasts were greatly enjoyed by everyone. A feature of the evening was the contest between the vocal quartettes representing the lawyers and the medics, who battled valiantly to a draw.

At the October meeting the president announced the appointment of the following members to serve on the Local Legislative Committee:

Dr. E. V. Howlett, Pontiac; Dr. B. M. Mitchell, Pontiac; Dr. J. S. Morrison, Royal Oak; Dr. N. T. Shaw, Birmingham; Dr. C. J. Sutherland, Clarkston; Dr. F. A. Baker, Pontiac, (Ex-Officio).

The Pontiac Exchange Club extends an invitation to the members of the Oakland County Medical Society to be present at their meeting on Friday evening, November 23rd, at 6 p. m. at the Board of Commerce. Dean Hugh Cabot of the University of Michigan Medical School will address the club. Luncheon 85 cents.

The health lecture series which are sponsored by the Joint Committee on Health Education, under the supervision of the University Extension Division were started on November 1st. In the Pontiac district the lecturers and their subjects are as follows:

Dr. L. M. Knox, "The Heart"; Dr. Fred Baker, "The Eyes"; Dr. B. T. Larson, "The Ears"; Dr. P. B. Jones, "Dental Fads and Fancies"; Dr. A. L. Brannack, "Diphtheria" and "Mental Hygiene."

In an attempt to create greater interest in general health the Michigan Committee on Public Health Education, a body representing all the important medical and health organizations in the state, has offered four prizes for the best essays dealing with health subjects and based upon the lectures given at the schools.

The prizes are:—First \$20; second \$15; third \$10 and fourth \$5. Like amounts of money are offered for the best drawings or cartoons on any health subject. These will be made into a book at the end of the year and distributed throughout the state. In addition to the individual prizes two silver cups will be awarded to the two schools enrolling the winners of first places in the essay and cartoon contests.

THE DOCTOR'S LIBRARY

Offering Suggestions and Recommendations

THE SURGICAL PATHOLOGY OF MALFORMATIONS IN THE KIDNEYS AND URETERS—James E. Davis, Detroit. (The Journal of Urology, Vol. 20, Nos. 1, 2, 3, July, Aug., Sept., 1928.)

Davis, having previously shown his particular interest in the pathology of the urinary and genital tracts by admirable contributions, has collected his data relative to malformations in this excellent monograph. Its completeness, penetrat-

NOTE—The monograph referred to in this article is more in the nature of an extensive reprint than the usual type of monograph which is procurable from the publishers. It is to be hoped that sometime Dr. Davis will see fit to make this excellent brochure available to the profession at large. The editor wishes to express his grateful acknowledgements not only to Dr. Davis, but likewise to Dr. Cumming for this excellent review of it.

ing thoroughness and balance between the theoretical and the practical, the latter by details of biological specimens and laboratory material, commend it to both student and practitioner.

Tracing the evolution of excretory function, beginning with the simplest forms of life, the most primitive urinary systems are found well up in the phylogenetic scale; although after the urinary tract is separated from the gastro-intestinal, a fairly regular progression occurs, with finally the provisional kidney replaced by the permanent metanephros in vertebrates. The true kidney when malformed turns back in form and function to some phase of its development, and in that phase corresponds to the normally functioning but prim-

itive kidney of a lower phylum. This basic fact is the foundation for all malformations, explaining satisfactorily, not only the relatively simple deviations in number and position of renal and ureteral structures, but such baffling anomalies as the polycystic kidney. The most valuable of all the author's work is his convincing analogy between the polycystic kidney of the human and the mesonephric and normally functioning kidney of certain lower forms. He has previously elaborated this individual study in other contributions.

Davis points out that in the development of the excretory (urinary) system in the phylum chordata—the highest of the twelve phyla—there is noted the formation of more than one organ to the attainment of possible function, each of the series giving way to the more advanced structure. So we have the pronephros, mesonephros, and finally, the metanephros. The frog, having outgrown its pronephros is satisfactorily served with a mesonephric kidney whereas in higher forms, the mesonephros must be replaced by the metanephros. Coupling these analogies with our common knowledge of the embryology of the human kidney and ureter we have a simple, solid foundation for the understanding of malformations.

In his general discussion of malformations, the author refers to the necessary knowledge of embryology, for a proper comprehension of the problems of congenital and acquired anomalies and for the establishment of a rational basis for the surgical management of the diseases related to the various malformations; the essence of the problem is conservation of the complex and intricate strictures involved.

The following classification is used: 1. Abnormalities of position. 2. Abnormalities of number. 3. Abnormalities of form. This is the usual classification and Davis has chosen to designate the third as "Anomalies of Form," including in this class the horseshoe kidney, the lobulated or fetal kidney, and anomalies of the ureter and renal pelvis. As a separate malformation, he lists the polycystic kidney, discussing it in detail.

The etiologic factors for malpositions involve protoplasmic deficiency, intercurrent infection and extrinsic influences. It is significant that malpositions as well as malformations and the anomalous conditions (especially polycystic disease) predispose to acquired dysfunction, infection and physiological deficiencies. The author's statement concerning the importance of freeing the adrenal gland from a kidney placed abnormally high is probably extreme since the accidental removal of one adrenal is a relative frequent occurrence. Presumably the opposite gland was insufficient to carry on the total function necessary to sustain life in those cases cited. One other valuable point stressed, is the fact that with malpositions and malformations of the kidneys, some such changes may be expected in the pelvis of the kidneys and their corresponding ureter, and that especially with malformations, one may expect to find deformities (congenital) in other parts of the body. This latter is of diagnostic value.

These practical surgical problems are discussed: (1) The single kidney, removal of which is quite naturally fatal. (2) The horseshoe kidney, one portion being diseased, especially with stone and infection, and more liable to disease because of its irregular blood supply and abnormal ureteral drainage connections. Resection of the diseased half has been repeatedly successful. (3) The proneness of the fetal kidney to infection. (4) Imperfect drainage due to imperforate urethra, or ureter. The author also recognizes ureteral stric-

ture as a *causa operandi*. (5) The frequency of infection and hemorrhage in polycystic kidneys, especially in the adult, making the institution of corrective measures, imperative.

Polycystic kidney disease is treated as the most important defect of the urinary organs. The several discarded theories of origin are reviewed and the present conception of the cause, namely congenital deformations, is considered rather as a halting in development, at, or near, or including partially, the mesonephric stage. This is quite clearly shown in the study of hundreds of serial sections made in a specimen from a day old child, exemplifying the disease fully developed, but not having the acquired and confusing infection, inflammatory degeneration and hemorrhage of specimens from adults. The occurrence of this disease is not confined to any age as was formerly thought, and both kidneys are universally involved though the cystic degeneration is usually more advanced in one kidney. If one kidney is removed the disease advances rapidly in the other organ, if the patient survives, hence the proper recognition of the disease is of supreme importance.

After outlining the clinical course of polycystic kidney disease, mentioning the three stages, latent or first stage, active second stage giving symptoms characterized by their similarity to chronic interstitial nephritis, and third or terminal uremic stage, the author summarized the important symptoms, and methods of diagnosis, making the subject one of great importance to every clinical observer and especially to the urologist.

Finally the gross appearance and microscopic detail are given, the latter particularly in support of the contention that cysts from throughout the kidney substance, not confined to any one zone, and are the result of a halting in the development of capsular and tubular epithelium. The clinical histories of a series of twenty cases of polycystic disease, are given, together with complete data on the pathological specimens.

The numerous illustrations greatly clarify the entire monograph, adding immeasurably to its value.

—R. E. Cumming, M. D.

THE SCIENCE OF PUBLIC WELFARE—Robert W. Kelso.
Henry Holt & Co., New York. Price \$3.50.

Public welfare is a broad subject but here it is confined to a large extent to that portion of the public who is unfortunate in not being able to provide itself with the necessary food and shelter as well as relief in case of illness. It has been said, "The poor ye have always with you," hence the problem of charity is perennial. Not only have we here discussed the social needs of the honest indigent, but also the subject of the criminal is discussed in its broad outlines, as well as the treatment of the insane and the otherwise mentally subnormal. Often these subjects have been approached in a spirit of prejudice which of course solves nothing. Such subjects may be discussed in a somewhat arid and uninteresting fashion. This is not, however, the case in the present work. Probably the most outstanding feature of the work is its interesting presentation. Open the book almost anywhere and one reads on absorbed in the contents hardly knowing when to put the book down. While this work is intelligible to the broad general class of reader it will be of particular interest to the medical profession who are often brought face to face with the problems dealt with in the book.

A TEXT-BOOK OF PHARMACOLOGY AND THERAPEUTICS—Hugh A. McGuigan, M. D., Professor of Pharmacology and Therapeutics, University of Illinois, School of Medicine, Chicago. Octavo volume of 660 pages, illustrated. W. B. Saunders Company, Philadelphia and London, 1928. Cloth, \$6.00 net.

This is an entirely new work on the subject. It presents the important facts of pharmacology. The author has attempted to connect up physiology, biochemistry and pharmacology with clinical application. All the important drugs used in actual practice are dealt with in a very thorough way. Fifty pages are devoted to the subject of germicides and antiseptics. The book is well indexed and will serve as a very convenient book of reference for the therapist in whatever field.

CRITERIA FOR THE CLASSIFICATION AND DIAGNOSIS OF HEART DISEASE—By a committee, Joseph H. Bainton, M. D., Robert L. Levy, M. D., William C. Munly, M. D., Harold E. B. Pardee, Chairman, appointed by the Heart Committee of the New York Tuberculosis and Health Association, Inc. Paul B. Hoeber, New York. Price \$1.50.

The importance of heart disease as a cause of morbidity and mortality among the population, in which it ranks as a leading factor, is gradually attaining the prominence which it deserves. The prevention of heart disease, attacking as it does all types of people and among them the more intellectual and more useful members of the community, is a pressing problem. Its solution has been retarded by the fact that there has been no definite classification of the various disease entities which make it up.

A committee of the New York Tuberculosis and Heart Association has recently compiled a book of ninety-two pages, which gives in short form, the nomenclature, the aetiology, the anatomical basis and the pathological physiology in a very clear way. The general adoption of the terminology used will result in a more useful statistical study of this condition. As it is very briefly put and follows very closely the lines laid down in our regular text-books, it is not necessary to quote very much in detail.

It is interesting to note, however, that myocarditis of both the acute and the chronic form is recognized, the existence of which is a question which has aroused considerable controversy. That the committee is right in this contention, it seems unnecessary to attempt to prove. Anyone with any experience with heart diseases, knows that the chief symptoms with which we have to deal in the treatment are those of congestive heart failure and that these are provoked by disturbance in the myocardium. Those who are treating the chronic forms of heart disease have, as one of their chief problems, the handling of arrhythmias, these being due in the great majority of cases, to changes in the physiology of, or anatomical change in the myocardium. The Aschoff bodies present in rheumatic heart disease and the spirochetes which are now fairly often discovered in the myocardium, since Warthin made his original investigation, are all conclusive evidence that there is such a condition.

PROBLEMS IN SURGERY: UNIVERSITY OF WASHINGTON GRADUATE MEDICAL LECTURES FOR 1927—George W. Crile, M. D., edited by Amy F. Rowland. Octavo volume of 171 pages, illustrated. W. B. Saunders Company, Philadelphia and London, 1928. Cloth, \$4.00 net.

This work consists of a series of lectures under the general heading of "Course of Graduate Medical Lectures" of the University of Washington. They were given during the summer of 1927. The writer describes the series in an unpretentious way as a record of an informal discussion of the subjects treated which are of the first importance

in present day surgery. The titles of the lectures are as follows: (1) The Management of the Acute Infections; (2) A General Consideration of the Treatment of Premalignant and Malignant Conditions; (3) Operations on the Bad-Risk Patient; (4) The Mechanism of Hyperthyroidism; (5) Diagnostic and Operative Clinic; (6) A Bipolar Interpretation of Certain Normal and Pathological Conditions. The list of illustrations numbers forty-nine. Dr. Crile is known almost as well in the state of Michigan as in his own state, both as an author, as a surgeon, and as a lecturer on surgical subjects. The present volume is on par with Dr. Crile's well known volumes on other subjects.

MODERN X-RAY TECHNIQUE—Ed. C. Jerman; Bruce Publishing Company, St. Paul, Minnesota.

The scope of this work is indicated in the title. It is probably the most exhaustive and clearly written work on the subject of radiographic technique in existence at the present time. All phases of the subject are presented by the writer who is himself the doyen of X-ray technicians. The writer has been acquainted with Mr. Jerman's work for a number of years. As a teacher he has few equals and no superior. Roentgenologists will welcome this volume since it relieves them of a lot of detail in the matter of instructing operative assistants. Mr. Jerman's experience with X-ray machines and technique has been coincident with radiography from its discovery in 1895. The first chapter discusses the personality of the X-ray technician. This is a timely discussion in as much as the position is one requiring a high degree of intelligence as well as caution and tact. The text of the various chapters is not only clearly written but each chapter is supplemented by a series of questions and answers. There is room for doubt as to whether this is good pedagogics. It must be admitted, however, that it is certainly a matter of convenience and is undoubtedly excusable for the instruction of persons who may not have had the advantage of high school or college physics. A commendable feature also is the emphasis placed on protection as it pertains to both operator and patient. Every technician should almost memorize this chapter. The final chapters of the book describe in detail the positions and proper orientation of the patient to produce the maximum results. The format of the book is such as to make it altogether a pleasing and attractive volume.

Books received for review are acknowledged promptly in this column; we assume no other obligation in return for the courtesy of those sending us the same. In many cases, review notes will be promptly published shortly after acknowledgment of receipt has been made in this column.

SYNTHETIC EPHEDRINE COMPARED TO NATURAL

Synthetic ephedrine has little difference in action from the natural product made from the Chinese herb, Ma Huang, announced Dr. K. K. Chen of the Johns Hopkins University, at the meeting of the American Pharmaceutical Association her recently. Dr. Chen reported the results of investigations on this drug, which is used extensively to relieve hay fever and asthma, to dilate the pupils of the eyes before examination, and to contract congested membranes of the nose. Qualitative and quantitative tests indicate that the two drugs have almost the same properties. In the treatment of asthma, the synthetic drug appears to have a weaker action than the natural. In the effect on the membranes of the nose the two products are similar.—Science Service.

PHYSIOLOGICAL AND AUTO EXPERIMENTS MAKE VEHICLE TUNNELS POSSIBLE

How modern tunnels for vehicles under rivers, such as the Holland Tunnel under the Hudson river, have been made possible by means of experiments on animals and experiments in which full-sized autos were driven through a small experimental tunnel, is revealed in a report to the Engineering Foundation here by A. C. Fieldner, chief engineer of the experiment station division of the U. S. Bureau of Mines. When the Holland Tunnel was first proposed, says Mr. Fieldner, many engineers thought that it would be impossible to ventilate. The amount of poisonous carbon monoxide given off in the exhaust was thought to be so great that it could not be carried away. Experiments made by Prof. Yandell Henderson at Yale University showed that as much carbon monoxide in the air as 4 parts in 10,000 would not be harmful if the exposure did not exceed an hour. The first experiments were made on animals, then Prof. Henderson and his students tried it on themselves.

Then an experimental tunnel was built at the experimental mine of the Bureau of Mines near Pittsburgh. This was 9 feet wide, 8 feet high and 400 feet long. Above the ceiling was an air duct 3 feet high, and below the floor was one 2½ feet high. Either could be used for introducing fresh air or for exhausting contaminated air.

Small automobiles were driven back and forth through the tunnel at a speed of 10 miles an hour, and at 40 foot intervals. Tests were made with various methods of removing and admitting air, and examinations of the drivers by blood tests were made before and after. It was found that the most efficient method of ventilating was to admit the fresh air at the bottom and to remove it at the top.

Another safety device developed by the Bureau of Mines in use in the Holland Tunnel is an automatic carbon monoxide recording machine, which rings a bell and flashes a danger light when the gas becomes more concentrated than 4 parts in 10,000. Then immediate steps can be taken to increase the circulation of air.—Science Service.

"POKER SPINE" FOUND ON ESKIMO SKELETON

"Stiff backbone" is said to be a good thing, morally, since it indicates strength of character, but the backbone indicated by medical men as a "poker spine" must be considerable of a nuisance. Bands of new bone run up and down the vertebral column forming sometimes a rod of unbendable bone where a flexible structure should exist. Such "poker spines" are found among some of the ancient dinosaurs, usually in the tail, where the backbone for ten feet or more may be rendered solid by the ossification of the vertebral ligaments. It is further known in many fossil mammals, in fossil crocodiles, and is very common in ancient man, especially among the ancient Egyptians whose bodies were buried in the hot, dry sands of the desert. Everything under the sun has been stated as the cause of this affliction which renders the patient so helpless. The weather is said to cause it. Alcoholic liquors, tobacco, cave dwelling, the nature of the food, the clothing, the condition of the teeth and other conditions are said to be responsible. At the city museum in Cairo are preserved "poker spines" from the ancient Nubians who dwelt in the hottest, driest place on earth and, by contrast, the San Diego Museum possesses a "poker spine" of an Eskimo,

from St. Lawrence Island in Bering Sea, surely one of the coldest, wettest places under the heavens. It is thus possible to rule out the weather as a cause of the stiff backbones. The Eskimo not only had his backbone stiffened but it was also fused to his pelvis, rendering him totally helpless.—Science Service.

STOUT SISTERS SPEND THOUSANDS IN EFFORTS TO REDUCE WITHOUT DIETING

Patent medicine sharks are reaping profits aggregating millions as a result of the modern craze for sylph-like figures, according to Dr. Frederic Lyman Kebler, chief of the Division of Drugs, U. S. Department of Agriculture. Co-operating with the Federal Postoffice in its efforts to prevent use of the mails to defraud, Dr. Kebler has directed the investigation and analysis of more than forty so-called obesity cures, not one of which, he states, could be recommended as being both effective and non-injurious. The remedies tested range from bath salts, chewing gum, pills and patent teas, to reducing creams and soaps. All of those examined, in the class involving internal use, have been found to contain a few cents worth of cheap laxatives and simple household products, which could not conceivably aid a person intent upon losing weight. Many of the pills contain thyroid extract, which should never be administered except by a physician. One sample of bath salts turned out to be common photographic "hypo". The creams usually have been found to be soap. Heavy fines are levied against manufacturers, convicted of fraud, and dozens of the remedies have been put off the market, but new ones keep cropping up to take their places. Dr. Kebler says profits on such products range from one to four hundred per cent, and it is not unusual for the annual net income of the promoter to reach six figures, sometimes hitting the half million mark.—Science Service.

LIVING BACTERIA FOUND IN 250,000,000 YEAR OLD ROCKS

Living bacteria have been found in rocks of Algonkian age, estimated to be at least a quarter of a billion years old, by Prof. Chas. B. Lipman of the University of California. If they prove to have been sealed in there from the beginning they will be incomparably the oldest living things on earth; by comparison with them the Big Trees of California, the giant cypress of Tule, Mexico, and all other noted ancient trees will be mere incidents of a moment ago. Prof. Lipman is giving a preliminary report of his researches in the forthcoming issue of Science. He states that the outsides of the rocks were subjected to drastic sterilization processes before they were opened, and that all possible precautions were taken against contamination of his cultures from other sources. The bacteria obtained from the broken rocks are quite different from forms now known to Prof. Lipman, though they have a strong family resemblance to certain thread-like colonial bacteria found in water and soil. He states that he has become convinced that these microscopic living beings are indigenous to the rocks in the spore or resting condition.

If they are as ancient as the rocks themselves, their claim to the title of oldest living things is easily established. Bacteria reproduce simply by dividing into two parts, each of which then grows up to the same size as the original cell. Either or both of the so-called "daughter" cells is thus

really identical with its "parent", a paradox long known to bacteriologists. Bacteria never die unless they are killed. Thus these quarter-billion-year-old rocks may contain quarter-billion-year-old bacteria. There is one possible catch. Prof. Lipman takes into account the possibility that these bacteria may have got into the rocks at a date much later than their own formation. They were specimens found at the surface. However, other bacteria were similarly found in rocks of Pliocene date, a much more recent geological period; and these rocks had been newly brought from a depth of several hundred feet.—Science Service.

SWISS ARMY AIDS IN GOITER STUDIES

The Swiss army is doing its bit in defense of the country's health. Efforts to eradicate goiter are being made by means of a very thorough investigation of the conditions that may possibly cause this disease, and the arm recruits are being examined particularly to this end.

The examinations have brought forth the surprising fact that goiter is most prevalent in that part of the country in which German is spoken, in contrast to the French, Italian and Spanish sections of Switzerland. Dr. Stiner of this city who has conducted the statistical survey says that of course the presence of goiter does not depend on the language itself, but that the customs and habits of the German-speaking Swiss probably have some bearing on the subject.

For instance, the German methods of cooking are quite different from the French and Italian. This is particularly true of the preparation of vegetables and foods rich in vitamins and iodine. The non-Germanic people customarily eat more raw foods than the German speaking people.

The number of cases of goiter in the entire country has very much increased in the last decades but there are far fewer serious cases now than ten or twenty years ago.—Science Service.

LOOKS TO MEDICAL COLLEGES TO REDUCE MATERNAL DEATHS

Reduction in our present high maternal death rate must be based on adequate obstetrical training in the medical schools, members of the American Public Health association were told at a recent meeting in Chicago by Dr. Carl H. Davis, chairman of the section on obstetrics, gynecology and abdominal surgery of the American Medical association.

In spite of the fact that we have relatively few midwives, our maternal mortality is rather high, compared with that of other countries. Obstetrics is the specialty of the general practitioner, the nucleus around which he builds his practice. This subject should be given more attention in the medical school, Dr. Davis advised, in order to reduce this high death rate.

At the same session Dr. Blanche M. Haines of the U. S. Children's bureau, announced that maternal mortality rates for the entire registration area have shown practically no change in the period from 1917 to 1926. In the cities, the rate increased by 3.9 for every 10,000 births during this period. In rural districts a slight decline occurred. The rate for the whole area in 1917 was 66.2 deaths in every 10,000 live births. In 1926 it was 65.6 per 10,000.

Factors credited with the decline in the maternal death rate in rural districts are educational work, improvement in obstetrical training of

physicians, instruction and supervision of midwives, assistance of lay organizations of women in the educational program and extension of improved highways.

Twelve states are now studying the subject with the assistance of the Children's bureau. Results are not yet reported from all states and no conclusions can be drawn from the studies at this stage.—Science Service.

SCIENTIFIC FOOD ADVERTISERS MUST FOLLOW RULES OF SCIENCE

If advertising would invoke the aid of science it must follow the rules that govern research in science, said Dr. E. V. McCollum of the Johns Hopkins University at a meeting of the American Public Health Association. Particularly in food advertising, the public is being misled by a wrong use of science. Dr. McCollum presented a plan for an advisory board to consider food advertising.

The board would be composed of eminent scientific men and would only act to advise publishers on strictly scientific matters. This board would decide on questions of accuracy, authenticity, propriety and applicability of scientific statements in food advertisements.

Advertisers themselves are feeling the need of such a board, for the idea was first suggested by John Benson, president of the American Association of Advertising Agencies. Dr. McCollum believes that publishers are also feeling perplexed over the developments in advertising of food products, which have become so extravagant in their claims.

The reason for the fierce competition prompting this wave of so-called scientific advertisements of food is that we are at present eating all we possibly can without harm, says Dr. McCollum. Advertisers, in order to sell more of any kind of food, must take advantage of present scientific knowledge of our nutritional needs. However, too many of them are being led to give the public half-truths in place of scientific facts.—Scientific Service.

CHRONIC PEPTIC ULCER

In 375 gastro-enterostomies performed by Robert C. Coffey, Portland, Ore., in a 24-year period the mortality was 2.4 per cent, while there were 96 cases in which operation other than gastro-enterostomy was performed, with 11 deaths, 11.4 per cent. This discrepancy is more apparent than real because, first, the gastro-enterostomy operations were performed largely for duodenal ulcer, which is not such a serious condition as gastric ulcer, and, secondly, the 96 radical operations include most of the gastric ulcers and the bleeding ulcers, some of which were duodenal. During the eleven years from 1917 to 1927, inclusive, there were 324 patients operated on with eight deaths, a mortality rate of 2.46 per cent, against the total mortality for twenty-four years in 471 cases of 4.2 per cent. During the last period of eleven years there were 294 gastro-enterostomies with five deaths, a mortality of 1.7 per cent, as against 2.4 per cent of the gastro-enterostomies for the entire series. During this 11-year period there were 30 operations other than gastro-enterostomy with three deaths, a mortality of 10 per cent, but these three deaths were in the patients described as handicapped in whom a gastro-enterostomy was not practical. Coffey describes his methods of procedure in these cases.

—Journal A. M. A.

THE JOURNAL

OF THE

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Wherein our Saviour's birth is celebrated
The bird of dawning singeth all night long;
And then, they say no spirit dares to stir abroad;
The nights are wholesome; then no planets strike,
No fairy takes nor witch hath power to charm,
So hallowed and so gracious is the time."

—Hamlet.

* * *

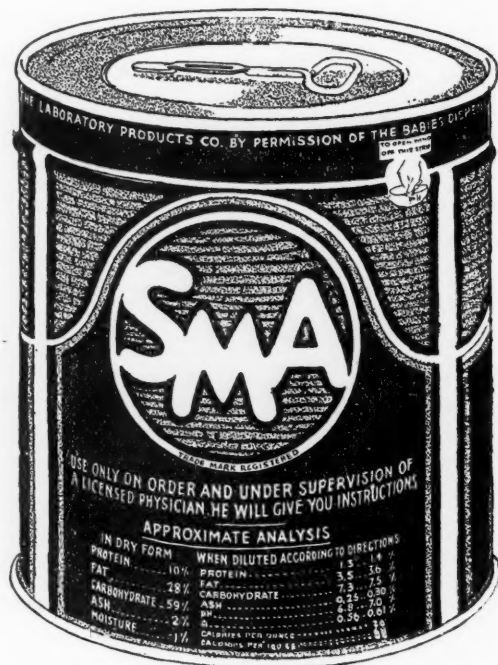
Before the next number of this Journal reaches the readers 1928 will have passed into history. The President, the members of the Council, the Publication Committee, the Secretary and Business Manager, and the Editor take this opportunity to extend the Christmas greetings together with best wishes for a Bright and Happy New Year to each member of the Michigan State Medical Society.

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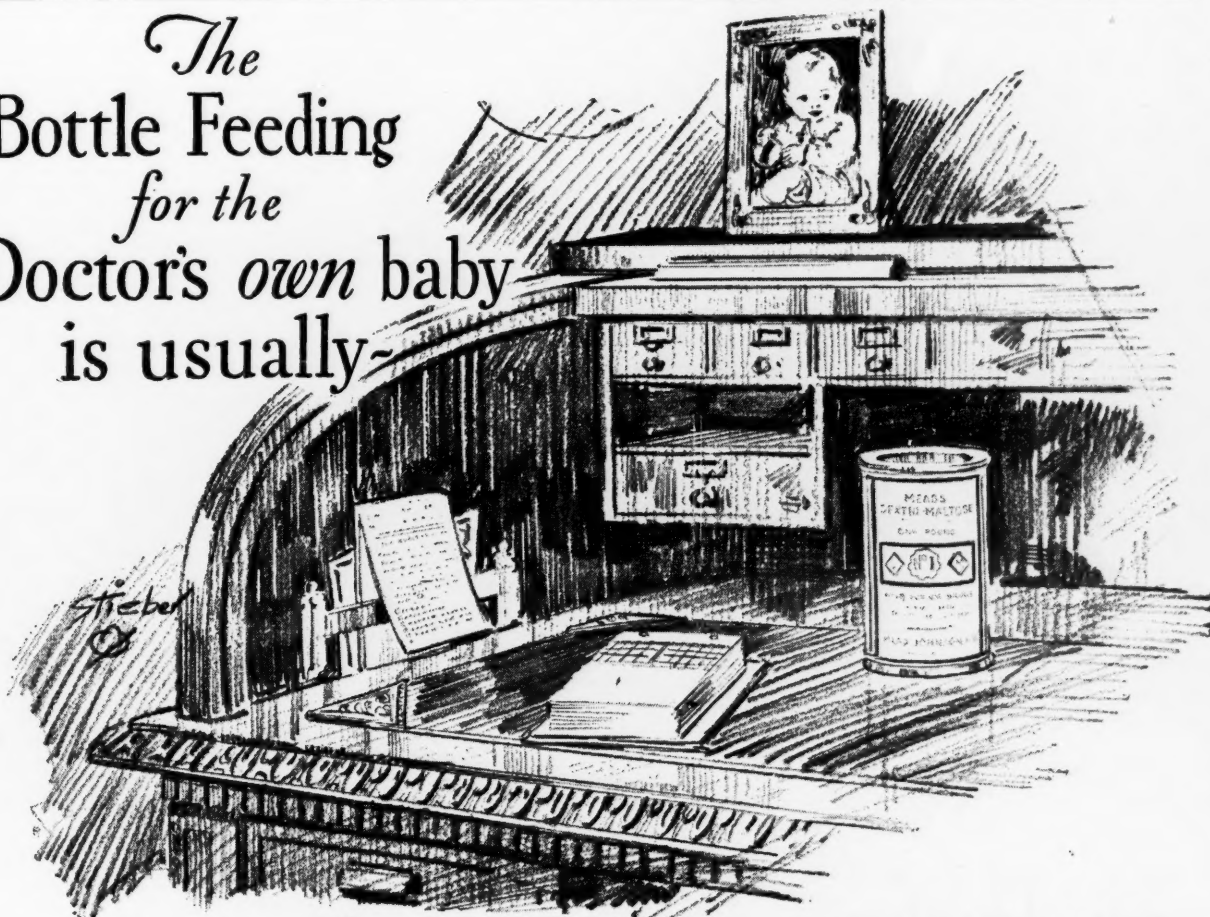
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